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WITH PLATES A-M.

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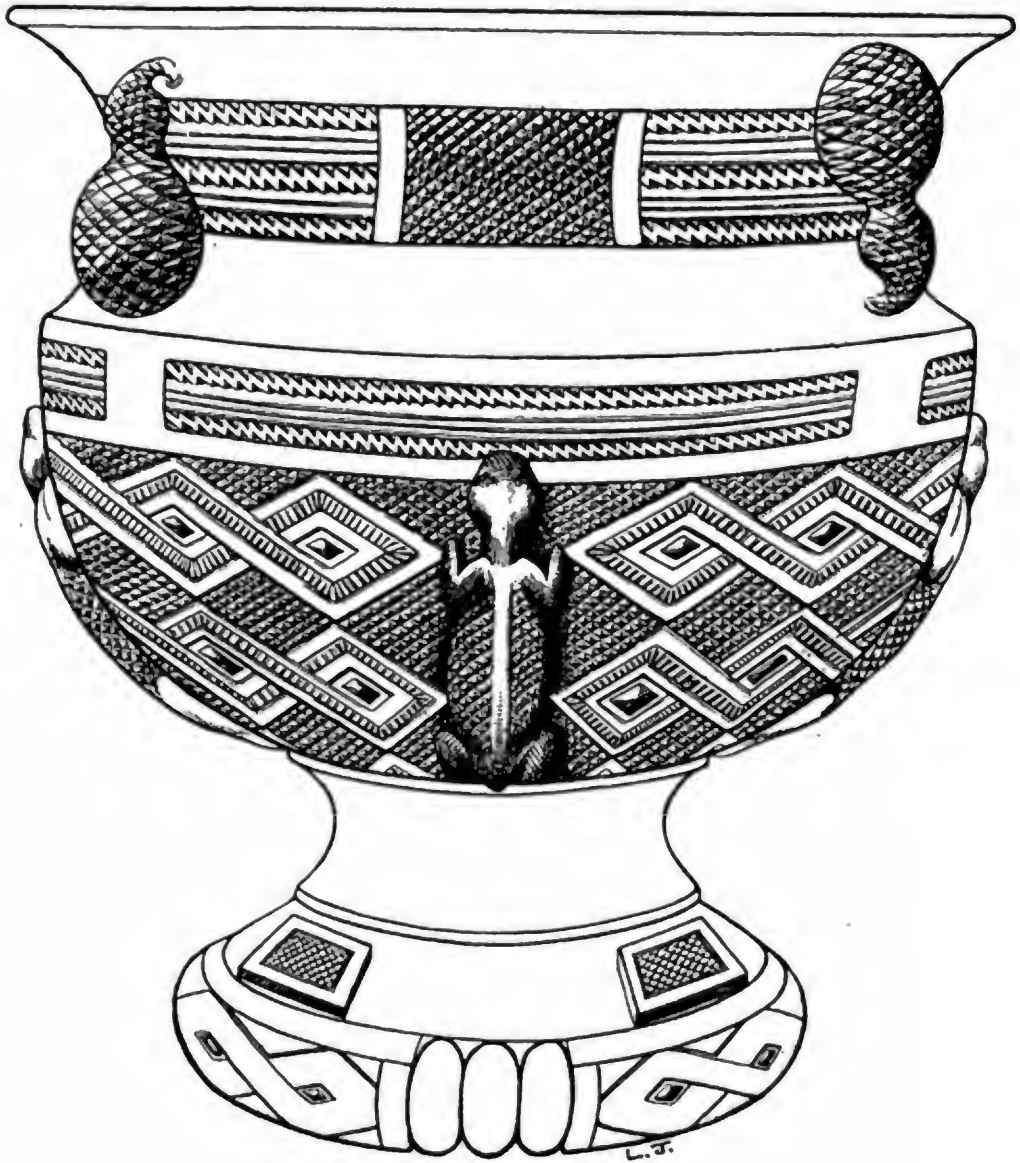
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CARVED WOODEN CUP FROM THE BAKUBA, KASAI DISTRICT.
CONGO FREE STATE.

(Restored and slightly enlarged.)

MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE

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ORIGINAL ARTICLES.

Africa: Congo Art.

With Plate A.

Joyce.

On a Carved Wooden Cup from the BaKuba, Kasai District, Congo Free State. By T. A. Joyce, M.A.

A large ethnographical collection, comprising a great number of specimens of unusual interest has already resulted from the labours of the expedition, under the leadership of Mr. E. Torday, still in the Congo Free State. That part of the collection which is illustrative of the art of the BaKuba people (or, as they should more properly be called, Bushonge) is especially noteworthy, and of that series the specimen figured herewith is one of the most remarkable. This wooden cup, unfortunately somewhat damaged, was obtained in Misumba, a village of the BaNgongo sub-tribe of BaKuba, from an old fetish man, who stated that it was of great age.

The cup is carved from solid, hard, dark wood; it is vase-shaped with hemispherical body, and stands on a circular foot; it is furnished above the hemispherical portion with a well-marked shoulder, above which is a curved lip, the curve approximating to a semi-circle; the edge of the lip extends very slightly beyond the shoulder. The cup is elaborately ornamented with patterns in relief as follows:—Four lizards, the scales, indicated by lozenge diaper, are carved in high relief on the body of the vessel, disposed at equal distances, their tails touching the stem, their hands reaching to within a short distance of the shoulder; the space between each pair of lizards is filled with three series of continuous loop pattern on a ground of minute lozenge diaper; along the edge of the shoulder runs a band of zigzag and line pattern divided into panels; a broader band of similar panels, alternating with panels of lozenge diaper, encircles the concave portion of the lip; vertically across this concave portion, and at four intervals round the cup not quite equidistant, extend four weevils of the genus *Brachycerus*, arranged so as to alternate with the lizards below, their heads pointing alternately up and down. These are carved quite free of the lip, touching it only at two points respectively a little below the rim and a little above the shoulder; they are covered with lozenge diaper. On the foot, directly below each weevil, is carved a trapezoid panel

in high relief, filled with lozenge diaper; round the rim of the foot are four continuous loops, separated by triple mouldings. The dimensions of the cup are as follows:—height, 123 cm.; diameter of lip, 117 cm.; diameter of foot, 81 cm.

As said above, the owner of the cup asserted that it was of great age. Of course, the statements of natives on this point are not trustworthy evidence, but the fact is clear from a glance at the specimen; in fact, in none of the other carvings obtained, even those of which the ornament has nearly disappeared by wear, does the actual wood show such evident traces of age. I think it may be concluded that the cup is a genuine "antique" in the limited sense of antiquity which can be applied to objects from savage Africa. Another point of interest lies in the fact that the carving of this cup evidences a greater mastery of material than any other woodcarving obtained in what may be termed the "provinces" of the BaKuba kingdom; the shape is remarkably graceful

and symmetrical, and is one proper rather to pottery or metal than to wood: the continuous loop pattern is, on the contrary, obviously derived from textile art; while the trapezoid projections on the foot are decidedly reminiscent of jewel work. On the whole the shape of the vessel distinctly suggests European influence, just as the ornament of the body suggests the art of Benin. But it is impossible to find in this neighbourhood even the remotest traces of direct European influence earlier than the comparatively recent date of Wissmann's visit. Of possible transmitted influence at a far earlier date I have a trace in the voluminous notes collected by the expedition.



This question will, I hope, be discussed fully in the ultimate report of the expedition; at the present time I can give no more than a few bald statements, omitting the evidence on which they are founded. Culturally the BaKuba face the west; from this quarter was introduced the game *mancala*, tobacco, cloth-embroidery, &c., as early as the middle of the seventeenth century; this date can be fixed with almost absolute certainty. According to the native account much was learnt from the BaPindi, a people whom we know to have been directly or indirectly in contact with the Portuguese of the early seventeenth century; so it is impossible to deny that there is a possibility of some faint shadow of Portuguese influence having been transmitted to the BaKuba. But it can have been no more than the merest shadow.

In considering the ornamentation of the cup in detail there is hardly a feature which does not seem to belong to the indigenous local art, and there is, moreover, one which appears to be peculiar to it; I allude to the weevils round the edge. This insect, often conventionalised almost beyond recognition, and nowhere else in so naturalistic a form, occurs on more than 50 per cent. of the large series of carved boxes collected by the expedition. The insect is evidently likened in the native imagination to a human head with high bulging forehead, and it is called *Mutu Jambi*, the head of God. In some of the conventionalised examples of this pattern, it is interesting to note, features have been added to what is in reality the thorax of the insect, which is supposed to represent the facial portion of the head. In conclusion, I will add that the apparent discrepancy between the photograph and restoration with respect to the position of the weevils relative to the curve of the lip arises from the fact that these weevils are not disposed at regular intervals round the cup, and the restoration and photograph show different aspects. The cup is now in the British Museum.

T. A. JOYCE.

Totemism.

Lang.

Linked Totems. By A. Lang.

I am greatly indebted to Dr. Seligmann for his explanations (MAN, 1908, 100). My difficulty was caused by his use of the word "clan," which I have only known as applied to the clans of the Highlands, on one side, and, on the other, erroneously, to totem kins. The paper of R. P. de Marzan has only added to my perplexities, for he uses the words "tribe," "clan," and "family" as equivalents, and applies them all to the same community, which also contains a "subdivision" with a totem of its own.*

The remarks of Dr. Rivers on Fijian totemism (MAN, 1908, 75) are perfectly lucid, if I rightly understand him as meaning "totem kin," or "totem clan" when he writes "sept,"—a term of very vague sense.

Fijian totemism, however, is remote in social characteristics from the unique and most interesting variety discovered by Dr. Seligmann in South-East British New Guinea. There, if I understand him, society is organised on a hitherto unheard-of model.

In Fiji, as I conceive Dr. Rivers to think possible, the totem of the *tribe* is parallel to the African tribal *Siboko*, or sacred animal; and is, as he suggests, the original totem of the *kin* of the chief, imposed by him on the whole *tribe*. It has no exogamous influence, and, as food, it is *tabu* to all members of the tribe. "The smaller divisions which may possibly be the representatives of exogamous septs" (in my terminology "totem kins"), "have also their special sacred animals." Thus every member of the tribe has at least two *tabu* animals, the tribal (originally the chief's) and that of his own "smaller division" (originally his totem kin, but now no longer exogamous). I do not understand that to each member of the tribe all the *tabu* objects, of all the smaller divisions in the tribe, are equally *tabu*: in any case none of these objects marks the exogamous limit. The Fijians have no totemic exogamy. Meanwhile the causes of the "linking" of the *tabu* objects, or totems, are clearly explained. Let it be added that the Fijians have male descent.

Very different is the state of society in South-East British New Guinea. Here, as I gather from Dr. Seligmann's reply to me, the "clan" is the "unit," and the clan is a *local* community, for it usually, though not invariably, has "a geographical name," not a totemic name, though some "clans" bear the name of one of their totems. Descent is through females, and the "clan" is exogamous. "Every

* *Anthropos*, Vol. II. Part 3, p. 403.

individual of a particular clan has the same linked totems," four in all, if the clan has four.

As to the exogamy of the clan Dr. Seligmann writes, "There may also be a dual or multiple grouping of the clans, but I must ignore this here." Now the "clan," being exogamous and local, must marry out of its four totems, and therefore out of its locality, like the Kurnai. With whom do its members intermarry? Apparently into one or more other "clans," possessing totems which are not its own totems. If so, the intermarrying "clans," for purposes of marriage law, are phratries, whether only two phratries in each case, as in Australia, or three or even more, as in some American tribes.

Thus it is as if, in the Dieri tribe (exogamous, with female descent), the phratry *Kararu* had but four totems, carpet snake, crow, *kananguru* seed, and bandicoot; while phratry *Matteri* had but four totems, cormorant, *Markara* fish, dingo, and caterpillar; and as if each member of either phratry belonged to all four totems of that phratry. We must also suppose each phratry to be locally apart from the other, as the New Guinea clans are local communities. This local separation of phratries occurs in some North Central Australian tribes, as these have descent through males. How it can occur in New Guinea, where each exogamous unit or "clan" reckons descent through females, I am unable to conjecture.

I am anxious (as it has been laid on me to write an account of totemism for a work of reference) to know whether I have correctly interpreted the statements of Dr. Seligmann. It is obvious that as each "clan" may not marry into itself, and into its own totems, it must marry into one or more other "clans," or exogamous local communities; and I presume that no man or woman may marry a person who owns even one of his or her "linked totems." The "clan" of South-East British New Guinea is certainly very unlike any community that has hitherto been spoken of as a "clan," and I suggest that we should call it by the native name for such a social aggregate.

A. LANG.

Totemism.

Seligmann.

Linked Totems in British New Guinea. By C. G. Seligmann, M.D.

It would be possible to reply to the particular points raised by Mr. Lang's note in sufficient detail to enable him to utilise my account for the "work of reference," but to do this would need so many lengthy explanations and reservations that it seems that my best course is to send to MAN sufficient extracts from my worked-up material to make clear the chief peculiarities of the totemism of South-East British New Guinea. To this end I will describe the conditions I found at Wagawaga, a Milne Bay community.

I must preface my remarks by stating that the dwellings of the communities of this part of New Guinea are arranged in scattered groups (at Wagawaga they are spread over a frontage of about 1,000 yards) which I call hamlets. The members of each hamlet, excepting people who have married in or been adopted, are closely related by blood, and are, in fact, a somewhat extended family group. Thus the householders of each hamlet are, or should be, of one clan, but in the community there are many hamlets belonging to each of its constituent clans, though each hamlet has its own name and exercises a considerable degree of autonomy.

Omitting certain immigrant folk who are still looked upon more or less as strangers, there are three clans in Wagawaga, the names of which are Garuboi, Modewa, and Hurana. Each of these has at least one bird totem, with, in each case, a linked fish, snake, and plant totem, all of which are called *pianai*. The hamlets and totems of each clan are as follows:—

Clan.	Hamlets.	Bird.	Totems.		
			Fish.	Snake.	Plant.
Garuboi	Kanabwahi	<i>Whaiuchai</i> (crow)	<i>Ipi</i> (skate).	<i>Garuboi</i> .	<i>Okioki</i> .
	Suaiaro	and			
	Kasaiaura	<i>Boi</i> (reef heron).			
	Wagawaga				
	Wagawaga pupuna				
Modewa	Daria	<i>Siai</i> (<i>Paradisea</i>	<i>Kurau</i> .	<i>Moka idai-</i>	<i>Modau</i> .
	Modewa	<i>raggiana</i>)			
	Yabarawa	and			
	Dobuapa	<i>Kulohulo</i> .			
Hurana	Hehego	<i>Wikiwiki</i> (a hawk).	<i>Bahibahi</i> .	<i>Gib adi</i> .	<i>Daberima</i> .
	Taradiu				
	Hurana (of Waga-				
	waga)				

Excluding the immigrants already alluded to, there is a dual grouping of the Wagawaga clans into two clan-groups, as in the following scheme:—

CLAN.	CLAN-GROUP.
Garuboi	Garuboi.
Modewa }	
Hurana }	Modewa.

This dual grouping of the clans regulated the terms by which each individual was addressed, while formerly it determined who should take part in the cannibal feast held to revenge a fellow villager killed by a hostile community. Further, until recently it determined a particular form of exogamy, but with the extinction of warfare and cannibal feasts within the last few years the dual grouping has so fallen into decay as to be largely ignored in the regulation of marriage, although totem exogamy is still quite generally observed.*

No man or woman might contract marriage with a member of his or her own clan-group, nor might any individual marry a member of his or her father's clan. Thus Ipunesa, a man of Modewa clan, might not marry into either of the clans Modewa or Hurana, since these composed his own clan-group. Nor might he marry into the clan-group Garuboi (the other clan-group of the Wagawaga village-system), since this contained but one clan, Garuboi, to which his father belonged. Hence, Ipunesa, in the old days would have necessarily married out of his own village-system.† But, besides the limitations above referred to, there was, and still is, the very real limitation imposed by consanguinity. How far this extended was never clear, but it certainly seemed that third cousins might not marry.

At the present day the clan-group restrictions above mentioned have broken down, but it seems that marriage between individuals of the same clan never occurs while

* These clan-groups resemble phratries, in that a man may not marry a member of his own clan-group and may marry a member of the other clan-group of his community if that clan-group be not barred to him by its being the clan-group to which his father belongs. I tend to regard the clan-groups as originally phratries, which, as the importance and avoidance of the father's totems became marked, ceased in a very large number of instances to be inter-marrying groups, although the old prohibition of marriage within the clan-group to which the individual belonged persisted.

† The communities of Milne Bay intermarry quite freely.

the prohibition of marriage into the clan of an individual's father is still equally observed, as are the rules of consanguinity.

It seemed that men were not usually considered to partake of any of the qualities of their totem birds, fish, or snakes.

There are no totem shrines, and no one was supposed to have particular influence over the birds or other animals which are his totems. There does not seem ever to have been any ceremony which had for its purpose the increasing of the totem, nor was there any tendency for a man to tame and keep his totem birds as pets; in fact, it was said that the keeping of pets was a recently-introduced habit learnt from Europeans.

It was clear that at Wagawaga a man showed more regard for his father's totem than for his own; that is to say, there was very much more ceremonial avoidance of his father's totem than of his own. It was alleged that a man might kill and even eat his own bird totem, though it seemed uncertain that he would eat it. In any case it may be noted that the bird totems of Wagawaga are birds that are not commonly considered good to eat, and that, even where this is not the case, the natives of South-Eastern New Guinea are not keen hunters of birds except such as provide feathers for dancing ornaments. It was said that a man would catch and eat his own totem fish, and there is no doubt of the accuracy of this information. It was further stated that a man would not hesitate to kill his totem snake if it lay across his track, or to destroy his totem plant whenever it was convenient to do so.

On the other hand, it was clear that no Wagawaga man would eat or destroy his father's totem birds, or would even approach a fire at which they were cooking; further, if a man saw his father's totem bird being killed he would go away for a short time or remonstrate with the killer, but he would not fight him nor quarrel with him, and, with the exception of not touching the dead totem bird, he would show no special regard for it. If in fishing his father's totem fish were caught the fisherman would ask one of his companions to remove it from the net, but he would not suggest that it should be returned to the water; on the other hand, he would not touch or eat it. A man respected his father's totem snake and would seek to avoid it; he would certainly not kill it.

The relation of a man to his father's totem plant was less clear; it seemed that he would generally avoid injuring it. A number of Modewa men whose fathers were of Garuboi clan agreed that they would not injure their father's totem plant *okioki* when met with when in the bush; but they said that if it interfered with garden-making they would destroy it. This partial avoidance of a father's totem plant did not, in the case of *okioki*, extend to lying-in women, whose diet for some time after parturition consists of a decoction of yams and *okioki* fruit or leaves. It was repeatedly and independently asserted that every woman, no matter whether *okioki* were her own or her father's totem, would eat this food during her puerperium. A man would not marry a woman with the same totems as his father, and one informant stated that all women of his father's totem were "half mother" to him. In the old days he would not sleep with a woman of his father's totem, nor should he sit close to her when visiting the girl-house (*potuma*); but in spite of this, and although in the old days no one would marry a girl of his own totem, some of the bolder or more amorous men would sleep with such girls. Nowadays this condition of things has changed and pre-nuptial connection is not even slightly limited by the old clan rules, and, although this conduct is not considered rigidly correct, no objection is ever raised; certainly the non-observance of this rule was considered too small an infringement of the clan laws to bring any harm on the lovers or their kin. A man would eat his wife's totem fish as he would his own, and the same rule applies to the wife's treatment of her husband's totem fish; it was said that a man would be no more and no less frightened of his wife's totem snake than he would be of any other snake in which he had no special interest.

No man would wear the feathers of his father's totem bird, although he would not hesitate to wear the feathers of his own totem bird. Indeed, these are his usual ornaments, and there is a feeling that it is specially appropriate that a man should wear the feathers of his totem bird, although he is not even theoretically limited to their use. The most commonly worn feathers were those of the cockatoo; with these the much rarer feathers of white individuals of the reef heron (*boi*) were worn when they could be obtained. During the *toreha* ceremonies the older men of the community would wear round their heads two, three, or even four hornbill beaks. A man would wear these beaks if his own totem were the hornbill, but on this, as on other occasions, would avoid coming in contact with the bird or its feathers, if the hornbill were his father's totem. Another instance of the avoidance of the feathers of a father's totem bird occurs at the *waiapa* ceremony, when bird-of-paradise feathers are worn by all who have not fathers with that bird as totem. Similarly a man whose father's totem is the reef heron will avoid wearing the feathers of the rare white variety of this bird; while a man, whose father's totem is the cockatoo will not wear this bird's feathers, but substitute feathers of white individuals of the reef heron when these can be obtained. No information concerning the origin of bird, fish, or snake totems could be obtained, but a rather trivial legend accounting for the origin of plant totems exists.

Totem birds, snakes, and fishes are commonly represented upon houses and canoe prows, and upon lime spatulæ and net floats, and, in fact, upon practically all the wooden utensils and ornaments of the folk of South-Eastern New Guinea and the neighbouring archipelagos. These carvings are, however, executed by any man who has the necessary skill and art, and it is certain that no man is limited in his designs to the use of his own totem or the totems of the man for whom he is carving. In many places, including Milne Bay, certain totem animals have passed into art, and in this connection their limitation to a particular group of people has been forgotten entirely. Thus, although the dominant patterns of a district or village may be derived from an animal which is the totem of only a few people in the village or district, and although it may be recognised that the pattern really does represent the totem of a small group of people, it is nevertheless used indifferently as a means of decorating the houses and utensils of folk whose totem it is, and of those entirely unconnected with it.

In the vast majority of cases of cannibalism in the Massim district the eating of human flesh was part of a ceremonial and solemn act of revenge which it was the duty of each community to observe on behalf of its own members killed and eaten by other communities with which it was at enmity.* The individual or individuals eaten in revenge for a fellow villager who had been eaten by the folk of a hostile community were called *maia* or *maiha*; and the clan organisation of the community profoundly affected this cannibalism as is shown by the following summary of an instance occurring a few years ago.

It became known at Maiwara, a community at the head of Milne Bay, that a Wagawaga canoe was about to visit Basilaki (Moresby Island), so three canoes put off quietly at night and an ambush was formed behind an island called Seraumi, close to which the Wagawaga canoe would pass. The ambush was successful, and the Maiwara men drove the Wagawaga canoe ashore where the majority of its crew took to the bush, leaving, however, two prisoners in the hands of the men of Maiwara, namely, Keori a man of clan Garuboi, and Bonadiero, a girl of about ten belonging to Modewa clan.† The captors tied up their prisoners and flung them into one of the

* In a smaller number of cases human flesh was undoubtedly eaten for the pleasure it afforded, and complete strangers were commonly killed and eaten; but there was, of course, no large or constant supply of food of this kind.

† Keori was a man of Wagawaga hamlet: his father, who had as bird-totems *siai*, the bird of paradise, and *kulokulo*, came from Bogohodu in the bush behind Discovery Bay.

Maiwara canoes, which leisurely started home, taking care to pass Wagawaga on the way. When opposite Wagawaga the Maiwara canoes approached to within some 200 yards of the shore, the majority of their crew drumming, shouting, gesticulating, and blowing conch shells. Then they halted and gave the dance *besa* or *boriri* used on such occasions. Their captives were made to stand up and stripped naked, while the girl's petticoat and the man's perineal band were waved in the air by the captors, who yelled the names of the prisoners and detailed how they would be cooked and eaten. Bonadiero cried and made repeated efforts to escape; Keori appeared to those on shore to be resigned. Wagawaga was wild with anger, but nothing could be done, and when the Maiwara men had amused themselves enough, they paddled on to their own village, where Keori was duly eaten after the usual preliminaries which I shall describe when considering the death of the Maiwara man, who was afterwards killed in revenge for him. The girl was not injured, but was adopted by one Taumaia, who did not, however, keep her long, for shortly afterwards, at a big dance, some Rabi guests kidnapped her and restored her to her own folk.*

At Wagawaga talk ran high and revenge was determined, but nothing was done for some six weeks; then canoes and weapons were prepared and the necessary feast, *ogatara* or *losuma*, was held, without which no party could seek for *maiha*.

Near sundown the war party started, the men being fully armed and provided with drums and conches, called *himorgo*, made of *Cassis* and *Triton* shells. They set out in ten canoes, each of which was stated to hold from twenty to thirty men, and, paddling quietly, they entered the Maiwara river, reaching the village about midnight. Landing noiselessly they surrounded and rushed a clubhouse, from which, however, all the inmates escaped with the exception of a man taken prisoner by one Rerenia. This man was securely tied up and thrust into the canoe. To avoid a possible counter-attack the attacking party took to their canoes and gained the mouth of the river as quickly as possible, where they lingered till daylight, when with beating of drums and blowing of conches they danced *besa*, replying with shouts and insults to the Maiwara men, who from the safety of the shore were heartily abusing them. Then the canoes returned triumphantly to Wagawaga, where their captive was pitched into the shallow water, speared by as many men as could reach him, and dragged ashore. The greatest care was taken not to kill the captive, for it was necessary that he should be more or less severely wounded by the next-of-kin of the man for whom revenge was being taken. In this instance Bakaiya, the brother of the dead man, who was not a member of the war party, slashed him across the shoulder with a tomahawk. If Keori had no brother his *auc* (maternal uncle) would have inflicted the wound, and if, as rarely happened, he was mortally injured at this stage it was looked upon as a regrettable mishap. As soon as the *maiha* was dragged to land the next-of-kin of the man whose death was being revenged made a considerable present, called *gudu*, to the victim's captor. In the instance narrated Bakaiya paid Rerenia one ceremonial stone adze, one shell disc (*sapisapi*) necklace, three shell nose ornaments, one boar's tusk, one pig, and one *bagi*. It seemed clear that Rerenia received these things not because he had given the *ogatara* or led the attacking party, but because he had himself taken a prisoner who would be *maiha* for Keori.

The victim was then dragged to the stone circle (*gahana*) of the clan which was reserved for cannibal feasts. There he was enveloped in dry cocoanut leaves and lashed to the tree (usually a cocoanut) which always stood in these *gahana* and burnt.

After the burning the victim's captor made a return present to the next-of-kin of the man for whom *maiha* was taken. Thus Rerenia gave Bakaiya a *bagi*.

* I am indebted to Mr. E. L. Giblin for pointing out that Taumaia is not strictly a personal name but literally means payer or redeemer and is derived from *tau*, "man," and *maia*, "to pay."

The *ane* of Keori who, as was customary, had helped Bakaiya to make up the *gudu* received nothing from Rerenia. It has already been stated that a dual grouping of the clans existed by which Modewa and Hurana could not intermarry, but together they formed the clan group which intermarried with Garuboi or with other clans outside the Wagawaga community. When *maiha* was taken for a Wagawaga man, the dual grouping was adhered to, but in the opposite sense, i.e., neither individuals of the intermarrying clan-group nor those belonging to outside clans might take part in the feast, which was strictly limited to the dead man's clan-group. The same limitation applied to the right of entry into each clan's cannibal *gahana*. Hence the *maiha* taken for Keori was eaten only by Garuboi men, had Keori been a member of either Modewa or Hurana clan, Garuboi would have abstained from eating his *maiha*, but both these clans together forming the clan group Modewa would have shared in the feast. It follows that in no instance should the father or the paternal relatives of the dead man for whom *maiha* was exacted, take part in the cannibal feast, and this was found to be the case. On the other hand, a mother would eat her son's *maiha*, as would all relatives on the maternal side. Further, no one would eat a man of his own killing or a prisoner he had taken, though it was said that he might eat a man of his own or even of his father's clan killed or captured by another individual. C. G. SELIGMANN.

Folklore.

Blackman.

The Fox as a Birth-Amulet. By Aylward M. Blackman, B.A.

In the *Zeitschrift für Ägyptische Sprache* (December 1907, page 75)



Dr. Borchardt publishes an article on the sign  *ms*, showing by two carefully worked




FIG. 1.

examples, the one of an early and the other (Fig. 1) of a late period, that it is made up of the skins of three foxes. The skins in these examples are complete and hang by the mouth to a handle of some material such as leather (?). Among the paintings, on the insides of the wooden coffins of the Middle Kingdom, depicting the outfit for the dead, Dr. Borchardt finds in a few instances an object apparently made up of the hides of foxes. Its name *ms-t* is written above it, and in one case a small gloss by the side reads "A *ms*-[t] in his right hand."

From these examples and instances in tomb-scenes in which fox tails fastened in a handle are shown carried in the hands of men and

women, Dr. Borchardt concludes that the sign  *ms* is a sort of fly-flap, the name of which is the feminine word *ms-t*, producing the word-sign value *ms*. The commonest use of this sign is for writing the verb *máy*, "to give birth to."

From October 1907 to April 1908, when acting as assistant in the Archaeological Survey of Nubia, in the course of the work between Shellál and Bâb el-Kalabsheh, I came across two instances of dead foxes used as charms, which may, perhaps, throw another light on the reason why the sign  was used as a word-sign for *máy*, to bear.

The first example (Fig. 2) comes from Gôdi, a small village some few miles south of Shellál and on



FIG. 2.

the east bank of the river. Over the door of the forecourt of the Omdah's house was suspended an entire fox. During conversation with the Omdah on one occasion I enquired why this animal was hung over his door, and he informed me it was a

charm. After telling him of similar practices in England to show I was not laughing at him, I asked what were its special virtues, and he replied that it was an amulet that especially protected the women of the household, preventing miscarriages, and helping them in labour.

In a small village not far north of Bâb el - Kalabsheh, overlooking the little temple of Tâfeh, there was a house with three foxes, lying at full length



FIG. 3.



with extended forelegs, on the flat roof above the door (Fig. 3).


On questioning the occupants I received an answer similar to that of the Omdah of Godi.

It appears, therefore, from these two instances, that the modern Nubians use the fox as an amulet for protecting women in pregnancy and child-birth.

It is a possibility that Fig. 1 was a birth amulet, its use as a fly-flap being secondary, and receiving the name *mâ-t* owing to its similarity to, or rather identity as regards materials with, the former.

I put this forward as a suggestion only. There are other cases of the survival of old Egyptian usages in Nubia, such as the method of grinding corn (Fig. 4, and see *Beni Hassan I.*, Plate 12).

It may be noted that the Old Kingdom form of the determinative of *mâ-y*, to bear, later a woman giving birth to a child whose head and arms protrude  is 

where  occurs in place of the child, possibly a case of the woman with the birth amulet beside her to help her in labour (??)

But, as Dr. Borchardt remarks in footnote 6 of his article, this may be only a combination of the words "to bear," and the sign of a woman. For a similar example see Griffith, on f 3, "to carry," Ptahhetep I, p. 14.

It is perhaps worth referring to the fox- or jackal-headed spirits, the *B'w Nhw*, which are represented in the birth-scene at Deir el-Bahari. (Naville, *Deir el-Bahari*, II, Pl. 51.)

N.B.—The animal was named *عاب* by the Omdah of Godi.

AYLWARD M. BLACKMAN.



FIG. 4.

REVIEWS.

Africa : Congo.

Johnston.

George Grenfell and the Congo. By Sir Harry Johnston. London : Hutchinson, 1908. Two Vols. Pp. xviii + 497 ; xx + 498-990. 24 x 16 cm. Price 30s. **5**

Probably no European has ever had better opportunity of studying the Congo peoples than the late George Grenfell. At one time and another he explored nearly every one of the Congo's navigable tributaries, and his acquaintance with the Congo territory, which lasted until his death in July, 1906, began at a time when the Congo natives were so little influenced by Europeans that he was frequently asked to sell his Kru servants for cannibalistic purposes, and has "all unavailingly stood by open graves and tried to prevent the living being buried with the dead." Although Grenfell's journals, letters, and memoranda form the framework on which the book is written, Sir Harry Johnston has used the opportunity to place on record much information that he has derived from other sources. He has used the records of the British Baptist Missionary Society, and has obtained information from the Rev. Lawson Forfeitt, Mr. Emil Torday, and others, in order to elucidate, amplify, and supplement the information gathered by Grenfell.

The result is a compilation of the most important data concerning the Congo territory and its inhabitants. Nearly half the book—almost all the second volume, in fact—is devoted to a mass, and a somewhat bewildering mass, of anthropological matter, concerning a great variety of peoples of very different stages of culture, from the nomadic pygmies to the greatly superior Hamiticised Mañibettu. So great a number of peoples come under review, peoples whose customs differ sufficiently to render separate notice necessary, and yet are sufficiently similar to make separate notice tedious, that parts of the book are necessarily somewhat heavy reading. Sir Harry Johnston would have made the book lighter if he had generalised more, and devoted more space to comment and speculation. He has chosen instead the less popular and infinitely more valuable course of laying before the reader the "raw material" of his subject, to the loss of those who read for amusement and the gain of the serious student.

To the anthropologist, perhaps, the most valuable feature of the book is the opportunity it gives of comparing one tribe with another, of tracing the evolution or decay of various customs, and the growth of arts, crafts, and institutions. The most primitive form of commerce practised in the Congo basin, for instance, is a form of the world-old "silent trade" carried on between the pygmies and their more powerful neighbours. Among more advanced tribes we find barter, the trade media used being articles of definite value such as salt, smoked fish, spear heads, and shells. From commerce of this kind has grown the use of small grass mats, that passing from hand to hand become so tattered that they come to have no more intrinsic value than bank notes, but retain their theoretic value as media of exchange.

The range of culture indicated by the construction of dwellings is very wide. The most advanced type is that of the Mañibettu, whose buildings surpass those of any other tribe in Central Africa in size, arrangement, and richness of decoration. The most primitive is that of the Balomotwa and Basanga, who live in natural caves and artificial caverns. On the Upper Lualaba are found strongly fortified subterranean dwellings, the plan of which has features that resemble the fortified pit-dwellings (Niekirk ruins) discovered in Mashonaland by Dr. Randall-MacIver.

Of food tabus some are inexplicable and dependent on the whim of the doctor who attends a child's birth, others are apparently attributable to some half-forgotten totemic observance. Some tribes will not eat bull frogs lest their eyes should bulge like those of the frog. Certain kinds of food, usually the most delectable, are forbidden

to women who violate this selfishly-imposed tabu on the sly. Women accustomed to express abhorrence at the idea of eating human flesh have confessed to Mr. Torday that they often took their share under cover of darkness. Among the Bambala, the members of a class named Muri, that seems to be the relic of a former aristocracy, are forbidden to eat human flesh. Among the Bayanzi human flesh is forbidden to chiefs.*

Of secret societies, guilds, and brotherhoods there is a great variety, though their influence is declining under European and missionary influences. The bond that unites some of these is the gratification of sensual or morbid desires, such as hemp-smoking, corpse-eating, and sexual indulgence. Other societies exist to combat these vices. An interesting feature of the Ndembo (Initiation) Society is that initiates are supposed to die and come to life again. During the period of initiation, in order to emphasise the complete change that takes place in their lives, initiates behave as if they belonged to another world. They speak a secret dialect, pretend not to understand anything that is said to them, and are immune both from justice and from all moral restrictions.

Cannibalism is among some tribes so commonplace that a speculator will take a carefully fattened slave into the market place and arrange for the disposal of each part of his body by retail before killing him. Among other tribes it is confined to certain secret societies or practised as a fetishistic rite. Among the Baluba only members of the Bakanzanzi sect are cannibals. They eat stolen corpses with many formalities, one of which is to imitate the actions of the hyæna as they eat. It would be interesting to know whether they do this in order to justify their loathsome behaviour, or whether they eat human flesh from an inexplicable desire to resemble hyænas.

The book contains interesting notes on the connection between polygamy and physical development, on survivals of marriage by capture (mock and real), the origin of the blood-brotherhood ceremony, methods of signalling by drum beats, &c. One would like to know more about the picture writing, evidence of the existence of which seems to be furnished by carved pieces of wood found in the cataract region of the Congo. Some of the games played present startling parallels to the parlour games to which we submit at Christmas time. In Congo folklore there are two stories to account for the mortality of the body. In another the chameleon challenges the elephant to a race and steals a victory by precisely the same dodge as that by which Uncle Remus's Brer Terrapin defeated Brer Rabbit. The book is admirably arranged and beautifully illustrated, but one wishes that some index system had been devised to assist the reader in using the very complete ethnographical map of the area covered by Bantu, semi-Bantu, and Negro tribes.

RALPH DURAND.

Religion.

Abrahams and others.

Religions Ancient and Modern :—

- (1) *Judaism*. By Israel Abrahams, M.A. London: Constable, 1907. **6**
18 x 12 cm. Pp. 107. Price 1s.
- (2) *Shinto, the Ancient Religion of Japan*. By W. G. Aston, C.M.G., D.Lit.
Same publishers, size and price. Pp. 83.
- (3) *The Mythologies of Ancient Mexico and Peru*. By Lewis Spence. Same
publishers, size and price. Pp. 80.

The high level of scholarship and criticism established by Messrs. Constable's *Religions Ancient and Modern* is fully maintained by these latest contributions to the series.

(1) Nothing could be more satisfactory than the *Judaism* of Mr. Abrahams, who, himself a Jew, handles the subject not only with competent knowledge, as might be

* Portuguese chroniclers record that the king of the Mazimba, a cannibal tribe that devastated the north bank of the Zambesi in 1592, did not eat human flesh in order "to be different from his subjects."

expected, but with a singular absence of prejudice which takes the reader almost by surprise. Such an attitude, not of indifference, for the personal element may still be read between the lines, but of philosophic impartiality, was possible only for a thoughtful student capable of standing outside his subject and contemplating it from an absolutely objective standpoint. How rare such cases are may be inferred from the statement often made that Thucydides is the one impartial historian! One is almost tempted to add, and Mr. Abrahams is the one impartial religious writer! At any rate this unbiassed spirit carries him far enough to "admit that Islam has absorbed" and purified the Jewish Monotheism. Islam has certainly a pure creed; it freed "itself from the entanglements of anthropomorphic metaphors and conceptions of God, which are apparent in the early strata of the Hebrew Bible, and from which" Judaism, because of its reverence for the Bible, has not emancipated itself yet."

The reader feels that he is safe in the hands of a guide who can write thus when he comes to deal with the later phases of the subject, and it is the later phases that are mainly discussed in this ideal monograph. Its starting point is taken, not at any pre- or post-exilic period, nor even at the capture of Jerusalem by Titus, but at its last capture and destruction by Adrian after the suppression of the revolt headed by Bar-Kokhba about A.D. 134-5. It was then that the Jews ceased to be a nation, and, while preserving a large measure of racial purity, sank to the position of a religious sect dispersed in small isolated communities over a great part of the known world. Hence the author is here concerned, not with the origin and evolution of Judaism through the early stages of animism, totemism, and polydemonism, to monolatry or henotheism and pure monotheism, but with the legacy bequeathed to it from the past, a legacy which is a real syncretism of most diverse heterogeneous elements. Herein lies the special merit of this essay, which shows in luminous language that in the present Judaism nothing is forgotten, all the old crudities and traditions are reverently preserved and merged in an incoherent system essentially illogical, inconsistent, and full even of contradictions. "God, in the early literature a tribal non-moral deity, " was in the later literature a righteous ruler," and "Judaism took over as one " individual body of sacred teachings both the early and the later literature in which " these varying conceptions of God were enshrined. Judaism, in short, included for " the Jew all that had gone before." Hence "in the Jewish theology of all ages we " find the most obvious contradictions. There was no attempt at reconciliation of " such contradictions. They were juxtaposed in a mechanical mixture, there was no " chemical compound. . . . The Jew transferred the changelessness of God to men's " changing ideas about him. With childlike *naïveté* he accepted all, he adopted all, " and he syncretised it all as best he could into the loose system in which Pharisaism " grafted itself. The legacy of the past thus *was* the past." The whole essay is but a lucid exposition of these axiomatic truths.

(2) The obscure subject of the Japanese national religion, commonly called *Shinto*, could not have been placed in better hands than those of Dr. Aston, whose whole life has been lived mainly in a Japanese environment. In dealing with Shinto as a whole he shows clearly that, despite its Chinese name (Ch. Shinto = Jap. Kami no Michi = "Way of the Gods"), it has no special relation with the Chinese or, indeed, with the Korean, the Siberian, the Polynesian, or any other religious system, but "is, on the " whole, an independent development of Japanese thought." This, however, does not carry us very far, and when we read that the extremely vague term, *Kami*, is alike applicable to such impersonal beings as the 80 or 800 myriad gods of the national pantheon, and even to such shadowy entities as the spirits of plants and animals, seas, rivers, mountains, or whatsoever else may be credited with hidden virtues and powers for good and evil, we seem lost in a shoreless ocean of terrestrial and celestial beliefs.

But here Dr. Aston comes to the rescue and explains that the superhuman Kami claiming worship, or at least reverence, are twofold, Nature-gods and Man-gods, "the first being the result of personification, the second of deification." This seems like saying that Shinto is the outcome of *animism* and *ancestor-worship*, the two fundamental concepts which lie at the base of all primitive beliefs. Only Mr. Aston will not have it so, and protests, to me it seems against the evidence, that the cult of ancestors formed no part in the evolution of the Japanese national religion. He himself speaks in one place of "the progressive development of ancestor-worship in Shinto," and elsewhere admits that "nine out of ten educated Japanese will declare that Shinto is ancestor-worship," while Mr. Daigoro Goh adds that this cult was "the creed of the ancient inhabitants." Hence Mr. Aston's contention that it is a later development unknown to the primitive system appears to be untenable. He also argues that the great deities of the older Shinto were not Man-gods (deified ancestors) but Nature-gods, such as the Sun, the Moon, the Earth, the Sea, Fire, Thunder, &c. But there was still a superfluity of *lesser* deities who may well have been regarded as Man-gods, and so worshipped. So it was elsewhere, as, for instance, in Greece, where the "Nature-gods" (Zeus, Apollo, Poseidon, &c.) were certainly greater than the "Man-gods" (Hercules, Æsculapius, &c.). No religious system stands apart, and all must be studied from the comparative platform in order to reach their inner essence.

(3) With one important reservation, Mr. Spence's *Mythologies of Ancient Mexico and Peru* will be accepted as a welcome introduction to the religious thought of the cultured Amerindians. The reservation has reference to the statement in the foreword about the supposed "neglect into which the study of the Mexican and Peruvian mythologies has fallen." The charge of "neglect" is unwarranted, and merely serves to mark the author's limited range of vision, which has had no eye for the astonishing amount of work carried out by German, American, and Mexican students during the last decade or so in this field of research. Most of the names entered in Mr. Spence's short bibliographies are either antiquated or superseded by such specialists as Dr. Arthur Baessler (*Ancient Peruvian Art*, Englished by A. H. Keane, 1902-3), Dr. Cyrus Thomas (many papers in 16th An. Rep. Bur. Eth., and elsewhere), Dr. E. Förstemann (*Neue Maya-Forschungen*), Dr. E. Seler (*The Aubin Tonalamatl*, and *Codex Fejérváry*, both fully elucidated and Englished by A. H. Keane, 1901, 1902), C. A. Robelo (*Diccionario de Mitología Nahoá*, in *Anales del Museo Nacional de México*, 2nd series).

How much the book must suffer from this neglect of the latest and best authorities, may be seen in the treatment of any particular subject, such, for instance, as Tezcatlipoca, the "Mexican Jupiter," as he is called by Sahagún. The account here given of this bloodthirsty god appears to be taken from Clavigero, or else from his copyist, T. Payne; hence the mistake of translating his name "Shining Mirror," instead of "Smoking Black Mirror," as pointed out by Robelo. Nor was he "the god of the cold season," and originally "an ice-god," since his feast was held in the balmy month of May with a profuse display of fruits and flowers.

In all other respects Mr. Spence's memoir may be warmly recommended for its sane and sober views on the Amerind cults and cultures. On the still much-discussed question of the origin and development of the native religions and civilisations he is strongly opposed to what I have elsewhere called the "Asiatic School," that is, those who bring everything from the Eastern hemisphere, and will not allow the American aborigines to have initiated any of their social and political systems. He rightly points out that such foreign influences, did they ever exist, "must have been of the most transitory description, and could have left but few traces upon the religion of the peoples in question." Then it is added, that "almost exhaustive proof of the wholly indigenous nature of the American religions is offered by the ruins of the large centres of culture and civilisation which are found scattered through Yucatan and Peru."

And the work concludes with the trenchant remark that "the origins of the religions of Mexico and Peru could not have been of any other than an indigenous nature. Their evolution took place wholly upon American soil, and if resemblances appear in their systems to the mythologies or religions of Asia, they are explicable by that law now so well known to anthropologists and students of comparative religion, that, given similar circumstances, and similar environments, the evolution of the religious beliefs of widely separated peoples will proceed upon similar lines."

A. H. KEANE.

Cerebrology.

Retzius.

Das Affenhirn in Bildlicher Darstellung. By Professor Gustav Retzius. 7
Stockholm, 1906. Pp. 24; eighty-seven plates. 39 x 30 cm.

This is a large folio volume containing upwards of sixty plates, which present photographic illustrations of the brains of a large number of monkeys. Facing the illustrations there are in most cases line drawings which serve as a key.

The value of the illustrations is enhanced by the care which has been shown in the selection and preparation of the brains; they were hardened by being suspended in a solution of formalin, or formalin and bichromate of potash. In order to prevent as far as possible any loss of shape, the brains were suspended by means of the basilar artery.

The text, other than the brief description of the illustrations, consists of less than twenty pages, and is concerned with the brains of the *Hapalidæ* and *Cebidæ*. The chief fact which is brought to light is the great variation which is found in the sulci and convolutions of closely related animals, such as, for instance, *Myocetes* and *Chrysothrix*.

It will be seen that the book is one for reference, and as such it cannot fail to prove of the greatest assistance and value to workers in the field of comparative cerebrology.

W. W.

Voyages.

Nicoll.

Three Voyages of a Naturalist, being an Account of many little-known Islands in Three Oceans visited by the "Valhalla," R.Y.S. By M. J. Nicoll, 8
with an introduction by the Right Hon. the Earl of Crawford, K.T., F.R.S. London: Witherby & Co., 1908. Pp. xxvi + 246. 23 x 15 cm. Price 7s. 6d.

The above work is an account of three voyages made by Mr. Nicoll, a naturalist on board the Earl of Crawford's yacht; the first round Africa, when several uninhabited islands were visited; the second to the West Indies; and the last round the world by way of the Straits of Magellan and the South Pacific Islands. It is not often that a purely scientific work can be made interesting to the lay reader, but in this Mr. Nicoll has been eminently successful, and his work can be read with unflagging interest from start to finish. The keeping of scientific names to footnotes is an idea which greatly assists the reader, as well as the fifty-six most excellent reproductions of photographs taken by the author and his fellow naturalist, Mr. Meade-Waldo.

In a book on natural history, however, one would have wished that the author had adopted the correct way of spelling the fruit of the cocos palm. The French recognise the difference between *cacao* and *coco*, why should not we?

So many of the islands visited were uninhabited, that it is only towards the end of the book that we get any anthropological notes. Chapter XX is devoted to Easter Island, where some good specimens of skulls were obtained. These have been reported on by Mr. T. A. Joyce, of the British Museum, who found in them distinct evidences of a Melanesian type. If this is so, what a vast field of conjecture is opened. Were they in any way related to the supposed earliest inhabitants of New Zealand,

as the present New Zealanders are to the inhabitants of the Eastern Pacific? Surely with so much that is being done for scientific research, Easter Island ought to be thoroughly examined before all evidence is swept away. "If anything is going to be done it must be done soon;" says Mr. Nicoll, "every year makes a great difference to the state of the carvings and caves, as the latter are now much used as shelters for sheep, and in a comparatively short time all traces of any carvings will be worn away by the frequent passing to and fro of these animals."

Pitcairn was the next island visited (Chapter XXI), and Mr. Nicoll there collected "records of inhabitants previous to the mutineers, in the shape of stone axe-heads, "but these," he says, "might have been left by visitors from a neighbouring shore." Mr. Nicoll does not figure these, or give any description as to size and shape.

In 1900 Mr. Allen-Brown exhibited before the Anthropological Institute some absolutely unique stone implements (afterwards described and figured in *Journ. Anthr. Inst.*, Vol. XXX, 1900). It would be interesting to know if the ones collected by Mr. Nicoll were of this form, or of the ordinary Tahitian type.

After leaving Tahiti, the "Valhalla" sailed for Samoa, where Mr. Nicoll describes the dances (*siva*) and Kava drinking parties. These are invariably conducted by the village virgin, or *tapu* (not *taupau*), who acts as hostess, and cannot fairly be described as "the chief dancing girl of the village" any more than a lady who leads a cotillion would be called a ballet dancer. It is evident that Mr. Nicoll took the spelling, *taupau*, from Mrs. Churchill, who in her prospectus spells it *taupau*, but changed it to *toupou* in the text of her work (*Samoa Uma*). Miss Hingston, in the *Women of all Nations*, uses the word *taupou*. I have searched through the works on Samoa but cannot find the word *taupou*. I was always under the impression that the word was *tapu*, as referring to the care with which the village virgin was guarded by her attendant girls, to preserve her intact for marriage to some chief.

In describing (p. 229) the dress of *tapu* (not *tappa*) worn by one of the villagers, Mr. Nicoll says it was made from the bark of the bread-fruit tree; this is the case in Tahiti, and even there applies only to the coarser kinds, the finer and more usual *tapas* are made from the inner bark of the paper mulberry tree (*Broussonetia papyrifera*). In Samoa the bark of the paper mulberry alone is used.

While congratulating Mr. Nicoll on his appointment to the Zoological Gardens of Giza, we sincerely hope that, although he may be unable to take further voyages with Lord Crawford, yet he will not be prevented from continuing his investigations.

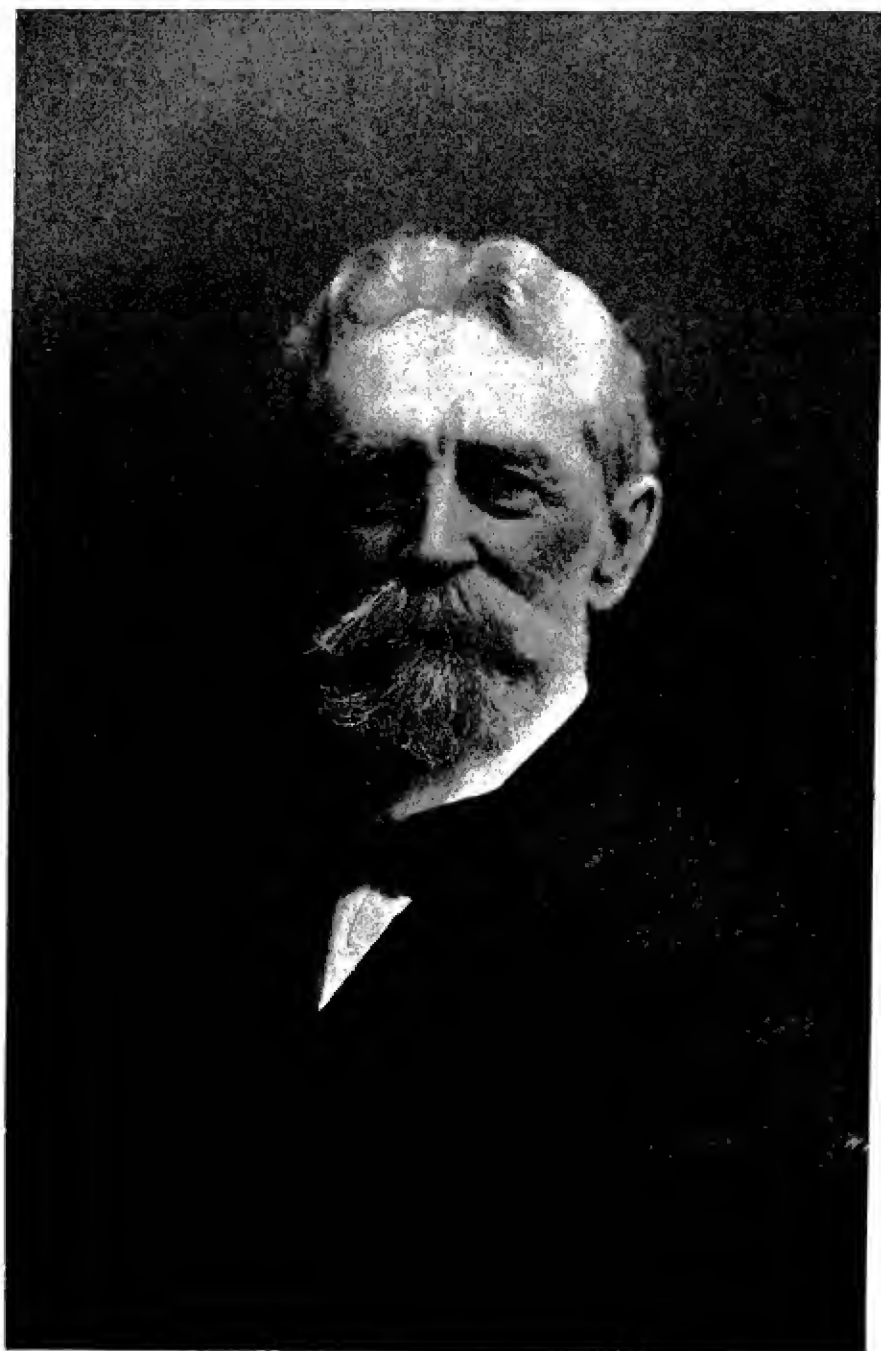
J. E. P.

ANTHROPOLOGICAL NOTES.

THE death occurred, on November 18th, of Dr. E. T. Hamy, Professor in the Museum of Natural History and Honorary Director of the Museum of Ethnography in Paris. He was born at Boulogne in 1842, and had been President of the Anthropological Society of Paris. He collaborated with Quatrefages, in *Crania Ethnica*, but his studies covered a wide field by no means limited to that of craniology, in which he was best known. He had been an Honorary Fellow of the Royal Anthropological Institute since 1884.

MR. ROBERT EDWARD CODRINGTON, Administrator of North-Western Rhodesia, died on December 16th. He was born on January 6th, 1869, and joined the Bechuanaland Police in 1890, seeing service in the Matabele War. He became Administrator of North-Eastern Rhodesia in 1900, and was transferred to North-Western Rhodesia in May, 1907. He had been a Fellow of the Royal Anthropological Institute since 1898.





OTIS TUFTON MASON.

ORIGINAL ARTICLES.

Obituary : Mason.

With Plate B.

Haddon : Bushnell.

Otis Tufton Mason. Born April 10th, 1838; died November 5th, 1908. 10
By A. C. Haddon, ScD., F.R.S.

Our colleagues in Washington have suffered a great loss in the death of Otis Tufton Mason, head curator of the Division of Ethnology of the United States National Museum, who died on November 5th at the age of seventy years. Dr. Mason was well known by ethnologists as the great exponent of the technology of the American Indians. Most of his memoirs were published in the Annual Reports of the United States National Museum, among which the following may be noted: *The Human Beast of Burden* (1887), *Cradles of the American Aborigines* (1887), *The Ulu or Woman's Knife of the Eskimo* (1890), *Influence of Environment upon Human Industries or Arts* (1896), *The Man's Knife among the North American Indians* (1899), *Pointed Bark Canoes of the Kutenai and Ainu* (1899), *Traps of the American Indians* (1901), *A Primitive Frame for Weaving Narrow Fabrics* (1901), *Aboriginal American Harpoons* (1902). A general summing up of much of his work will be found in the two interesting little books, *Woman's Share in Primitive Culture* and *The Origins of Invention: a Study of Industry among Primitive Peoples*, both published in 1895. The great development of the art of basketry among the American Indians induced Dr. Mason to pay a particular regard to this subject, on which he published several papers, and in 1904 appeared his greatest work, *Aboriginal American Basketry: Studies in a Textile Art without Machinery*, which consists of 377 pages, 212 figures in the text, and 248 plates: this will long remain the standard monograph on American basketry. Dr. Mason's latest contribution to this subject, *Vocabulary of Malaysian Basketwork: A Study in the W. L. Abbott Collection*, has just reached this country. It is a very useful guide to the basketry of the East Indian Archipelago, illustrated by forty-one figures in the text and seventeen plates. Dr. Mason arranged some very instructive cases in the Museum illustrating the evolution and distribution of various implements. It was an enjoyable experience to be taken round the National Museum by Dr. Mason, as he was brimming over with information and enthusiasm, and it was inspiring to share his delight in the many examples of fine basketwork in that notable collection. Indeed, it is a privilege to have known that lovable man.

A. C. HADDON.

By David I. Bushnell, Junr.

Professor Otis Tufton Mason died in Washington on Thursday, November 5th, 1908. Born at Eastport, Maine, April 10th, 1838, he, while still quite young, removed with his parents to Virginia. There, in the south, he was educated, and, in 1861, graduated from Columbian University, Washington, D.C. From that year until 1884 he was principal of the Columbian Preparatory School; but during the latter year he severed his connection with the school to become Curator of Ethnology in the National Museum. As early as 1872 he was interested in anthropological research, and in 1874 was made collaborator in ethnology in the museum, his first work being to arrange and classify the accumulated collections. At the time of his death Professor Mason was head curator of the much enlarged department of ethnology of the National Museum.

He was a man of distinguished bearing, though of delicate physique, whose purely chiselled features clearly bore the imprint of culture and birth. Through life he was just, kind, and benevolent in his dealings with others and of a personality that endeared him to those with whom he came in contact. Thus he will be missed by all.

By his death America has lost its most profound and ardent student of anthropology. During his years of untiring labour he produced many volumes and innumerable shorter papers, all of which reflect his high degree of learning and thorough knowledge of his favourite subject.

DAVID I. BUSHNELL, JR.

England: Archæology.

Cunnington.

Notes on a Late Celtic Rubbish Heap near Oare, Wiltshire. 11

By (Mrs.) M. E. Cunnington.*

The chalk downs that border the Pewsey Vale rise immediately behind the village of Oare. On this high ground and about a mile north-east from the village is Withy

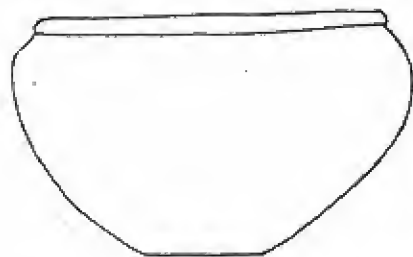


FIG. 1. (4)

Copse, in which an ancient rubbish heap, presenting the appearance of a low, irregularly-shaped mound, is now the only visible sign that the place was ever the site of human habitation. To-day the spot is lonely and secluded, and its chief inhabitants are the rabbits who find the mound easy to burrow in, and to whose unaided efforts in digging out fragments of pottery the discovery of the interesting nature of their home was in the first place due. Withy

Copse lies on sloping ground just to the north of the large earthwork known as Martinsell Camp; on its upper side the copse is bounded by the ditch and rampart of the camp, and the mound itself is only 100 yards from the rampart.

The mound is 63 feet long by 43 feet across at the widest part, and is nowhere higher than $2\frac{1}{2}$ feet above the ground level.

On account of the large quantity of potsherds in it, it has been suggested that the mound was the accumulated *débris* of a pottery, but there is no evidence of this being so. None of the pottery shows any sign of distortion in the baking, such as wasters from a kiln would; nor were any objects found that are particularly likely to have been used by a potter. The number of fragmentary bones of animals, of which sheep, pig, and ox are by far the most common, is large; and all the pottery is, without a single exception, in fragments; these facts, and the occasional occurrence of other relics, odds and ends, all of which, with scarcely an exception, had been broken or rendered useless before they were thrown away, make it as clear as any such evidence can, that the heap is simply an accumulation of rubbish from some dwelling that doubtless stood at no great distance from the spot.

Although so near to Martinsell Camp, it does not, of course, follow that the dwelling (that must once have stood here) had any real association with the camp. It is unfortunate that like most of the early and prehistoric camps of Wiltshire the date of Martinsell is unknown.

The pottery found in the mound may be divided roughly into two classes, that which is probably of native manufacture and that of foreign importation. As might be expected, the quantity of the latter is small in proportion to that of the former. Of the native pottery fully two-thirds of the fragments belong to one type of vessel, namely,

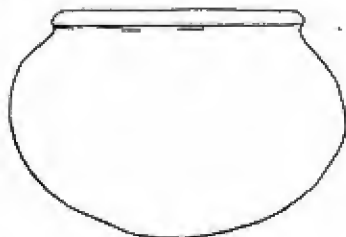


FIG. 2. (4)

* The excavations were carried out by Mr. B. H. Cunnington, F.S.A., Scot., during the autumn 1907, and the spring, 1908, by kind permission of Mr. F. N. Rogers, M.P., who has also kindly allowed the finds to be placed in the museum of the Wilts Archæological and Natural History Society at Devizes.

bowls with a bead rim. These bowls are of not inelegant outline, with slightly contracted mouth, and with a shoulder more or less rounded from which they taper to a base, often small in proportion to the size of the vessel, and sometimes rounded. (Figs. 1 and 2.)

They are of all sizes, from little things a few inches in diameter, holding perhaps a gill, to large heavy vessels the capacity of which might have been measured in gallons. There are, however, comparatively few very small or very large; the majority

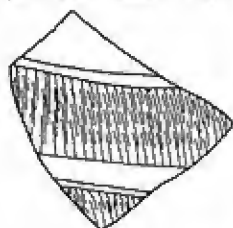


FIG. 3. (4)

of them being apparently from about 6 to 8 inches in diameter at the shoulder, and from 5 to 7 inches high. Most of the bowls are of grey pottery, varying in shade from a very pale grey to black; the others are brown, in shades varying from pale buff to chocolate, breaking out occasionally in a bright red. Some of the paste is mixed with a micaceous sand, and some with pounded flint or quartz. The paste of some of the largest bowl-shaped vessels is very coarse, and is mixed freely with large grains of flint, pounded brick or pot, ashes, and occasionally even with iron pyrites. The surfaces are often very smooth, finely tooled and polished. The bowls are all quite devoid of ornament, but a few have a band of incised lines or "cordons" round their shoulders (Fig. 6). The pottery of the other vessels of possibly native make shows the same characteristics as that of the bowls. They include jugs and jars with curving rims, round covers with hollow knobs, and flat plates or saucers. All the pottery, including the bowls, appears to be wheel turned, and is well baked and well made.

The bowl with the bead rim so common at Oare is, it appears, of a purely British type and characteristic of late Celtic pottery.* This type appears in the local ware from Weymouth in the British Museum, and among the late Celtic pottery in the Colchester Museum.† The bowls with round bottoms (Fig. 2) are suggestive of metal prototypes, and it is interesting to find that they bear close resemblance to a small bronze cup found with a late-Celtic burial at Colchester.

Among the pottery of foreign make may be noted:—A fragment of Belgic black ware of the first century A.D., characterised by its low foot rim similar to that on one of the pieces of Arretine ware. A similar piece of very fine grey ware with a low foot rim.

A fragment of green glazed Roman ware, very rare in this country, and no doubt imported from Gaul early in the first century A.D.

Several pieces of very thin white and cream-coloured pottery, perfectly baked, hard and smooth like unglazed china; possibly imported from Rheims in the first century A.D. This is of exceptionally fine quality.

Several fragments of similar ware, but of not quite such a fine quality, with "roulette" or "engine-turned" ornament (Fig. 3), and with a feathered zigzag ornament (Fig. 4).

Very fine micaceous buff-coloured ware, painted grey on the outside, red on the inside, with "roulette" ornament. There are examples of a similar ware at Colchester.

Fragments of painted red pottery, some of which are of an exceptionally fine quality. Locality unknown.



FIG. 4. (1)

* I am much indebted to Mr. Reginald Smith of the British Museum, and to Mr. Arthur Wright of the Colchester Museum, for their valuable notes upon the pottery, etc.

† General Pitt-Rivers found it a common type at the Romano-British villages of Woolcuts and Rotherly, but scarce at Woodyates (*Excavations*, Vol. III, 17, 53). Evidence led him to the inference that bead rims may have been in earlier use than other kinds of vessels (in the villages), and that they were apparently in commoner use among the poorer than among the richer inhabitants (*Excavations*, Vol. II, 144-5). This is what might be expected with a vessel of native type.

Several pieces of fine red Arretine ware, including fragments of the bases of two bowls, showing in each case a part of a maker's stamp. The name on one seems to end in the letters PLEV, but unfortunately this stamp appears to be unknown. On a fragment of a dish with a low foot rim the first two letters AT, and a part of a third are quite clear. This stamp, Mr. Reginald Smith of the British Museum thinks may possibly be that of ATIIIVS (ATEIVS), of whose stamp there are examples in the British Museum.

The fragments of Arretine ware are of special interest, for not only is it rare in Britain,* but they help also to date the find with a considerable degree of accuracy.

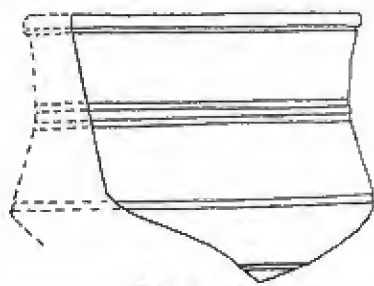


FIG. 5. (4)

The Arretine potteries flourished in the first and second centuries B.C. and in the early years of the first century A.D. At about this latter date the art of making this ware was carried into Gaul, and potteries were established there. The earliest Gaulish factories were probably started by potters from Italy, and if the name on the fragment from Oare is, indeed, that of Ateiva, as Mr. Smith thinks it may be, it is particularly interesting. The name is well known and seems to have been that of a large and important manufacturer. The actual site

of his workshops is still uncertain, and he may have been one of the pioneers who carried this Italian industry into Gaul. His workshops may have been in northern Italy or in southern Gaul, one authority thinking it probable that he had works in both localities. The date of this potter is, however, less uncertain, various discoveries going to prove that he was in full activity during the reign of Augustus.†

The factories of La Graufesenque, the earliest centre doing a large export trade in red glazed Gaulish ware (the so-called Samian), cover the period A.D. 30-100; towards the end of this period the great factories of Lezoux entered into competition with those of La Graufesenque, and soon superseding them carried on the trade to the middle of the third century, when it seems to have come to an end.‡ The absence, therefore, of any of this later Gaulish ware from the rubbish heap at Oare affords interesting negative evidence confirming the early date of the site. It is only reasonable to suppose that people who were in a position to use imported foreign wares, such as the Arretine, and black and white Belgic and Gaulish wares, would also have had some of the red Gaulish "Samian" so (comparatively) common at a little later date, had it been already in the market in their time. The fact of its common occurrence on Romano-British sites that are of a little later date emphasizes its absence at Oare.

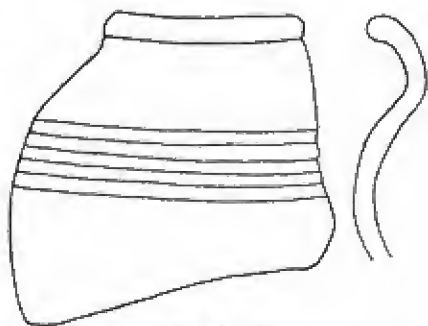


FIG. 6. (4)

Three fibulae were found in the mound, two of iron and one of bronze. One of the specimens is too imperfect to be characteristic; the other is of the type of La

* In a note in the *Proc. Soc. Ant.*, Vol. XXI, No. 2, 462, Professor Haverfield says, "Arretine ware is very rare in Britain, and the known finds are almost restricted to London and the south-east."

† For particulars respecting the potter Ateiva, etc., see *Les Vases Céramiques Ornés de la Gaule Romaine*, by J. Dechelette, 1904, page 16, and a paper by Mr. H. B. Walters, in *Proc. Cambridge Antiquarian Society*, No. XLVIII, 1903.

‡ See Dechelette, p. 103; also British Museum: Catalogue of Roman Pottery, p. xxx.

Tène III and very like a bronze specimen from Aylesford. The bronze fibula is of rather later type, the end of the bow is flattened to cover the spiral spring, and the spring is a separate piece of metal; the pin was of iron and worked on a sort of hinge on the small bar of iron on which the spring is coiled.

Both these fibulae, in Mr. Smith's opinion, belong to the century from 50 B.C. to 50 A.D., and thus agree perfectly with the evidence of date afforded by the pottery. Speaking generally of the pottery sent to him, Mr. Smith remarks, "So far as I can judge it all dates from the early years of our era. The purely British type of pottery is well represented," Nos. 24 (Fig. 2) and 26 (Fig. 5) being very characteristic late Celtic. In the face of this evidence it would seem that there need be little hesitation in assigning as the date of the formation of the rubbish heap the early years of the first century A.D. The early date of the Arretine ware makes it scarcely probable that the accumulation went on after the Roman conquest. The near neighbourhood of the dwelling to the big camp of Martinsell makes one wonder if there was any connection between these two events, the abandonment of the dwelling site and the occupation of the country by the Romans. It would certainly be very interesting to know to what period the camp belongs.

Among the other objects found were two iron sickle-shaped keys, a sling stone of baked clay, an iron bridle bit, a pair of bronze tweezers, the handle of a weaving comb, a bone gouge, several worked bones, eight pottery spindle whorls, six discs or roundels of pottery, fragments of worn quern stones, pieces of brick and iron slag.*

M. E. CUNNINGTON.

America, North-West.

Jetté.

On the Language of the Ten'a (iii). (Continued from MAN, 1908, 37.)
By the Rev. J. Jetté, S.J.

12

IV.—ROOT-NOUNS.

The term root-nouns, in its strictest sense, applies to those nouns that are primitive roots, not reducible to simpler elements. These are short, monosyllabic or dissyllabic, exceptionally trisyllabic. Such are many words designating:—

(1) Parts of the body as : *té*, head ; *küt*, neck ; *nōra*, *nekō*, *nekōt*, eyes ; *lō*, *lōt*, mouth ; *lō*, hand ; *kā*, foot, feet ; *tēn*, bone, leg ; *dzāy*, heart ; *tūra*, hair ; *sēk*, body ; &c.

(2) Persons of kin : *tō*, father ; *ōn*, mother ; *ten'a*, child ; *kūn*, husband ; *'ot*, wife ; *ūra*, elder brother ; *kēta*, younger brother ; *ōda*, elder sister ; *tāza*, younger sister ; *tōya*, uncle (on the father's side) ; *l'a*, uncle (on the mother's side) ; &c.

(3) Plants and animals : *kēh*, birch ; *tsēbā*, spruce ; *tōtt*, moss ; *sēs*, black bear ; *yēs*, wolf ; *noy'a*, beaver ; *tūka*, fish ; *kāt*, king salmon ; &c.

(4) Various objects, natural or manufactured : *dteē*, mountain ; *āh*, hill ; *āh*, strength ; *kūn*, fire ; *tū*, water ; *kōn*, rain ; *sō*, sun ; *oih*, snow-shoes ; *rott*, sled ; *kō*, bow, arrow ; *tsei*, *tsih*, canoe, boat ; &c.

In a broader sense we shall take the term root-nouns to include also nouns formed from those of the preceding class, when these, being combined into one word, form a term accepted in the language, as : *kūtken*, base of the neck ; *tētken*, occiput ; *kattōra*, sole of the foot ; *mēnkāt*, lake ; *tēkat*, grave ; &c. These can be resolved into simpler elements, each of which is a root significant by itself.

We shall also consider as root-nouns the words of foreign origin, mostly borrowed from the Russian, imported to designate things unknown to the Ten'a before their contact with the whites, as : *toyon*, rich man, chief, influential person ; *tsay*, tea ; *mukē*, flour ; *sasi*, watch, clock ; *kalendar*, pencil ; *dinka*, silver, money ; *zolda*, gold ; *loset*, horse, horses ; &c.

* A fuller account of the "find" at Oare will be published in the magazine of the Wilts Archaeological and Natural History Society.

If the Ten'a vocabulary had no other nouns than those already described, the common surmise of superficial observers that it is rather meagre would be fully justified. But it also comprises a variety of suffix-nouns, formed by a regular process from other words. The abundance of terms thus obtained and in common use among the Ten'a often puzzles the learner. After having mastered the genuine rendering of some common word, he finds himself at a loss when he hears the same expressed in a number of different ways, the possibility of which had never occurred to him. Thus, to take a common instance, "my wife" is exactly rendered by *se-'ot*. But a Ten'a will very often replace the proper word by some equivalent phrase, such as: *mor lesdonen*, the one with whom I cohabit; *ma kã testanen*, the one whom I love; *sa kã tenetanen*, the one who loves me; *se ilo réyonen*, the one who gave herself to me; *se ilo tserëttenen*, *se ilo raletanen*, the one who was given to me in marriage; *ulesniken*, the one whom I have taken; &c. All these are suffix-nouns, which may be used in place of the proper designation. They are equivalent, as may be seen, to relative clauses; and the suffix-nouns are in reality the only rendering which the language supplies for our relative clauses.

The suffix-nouns will be fully treated in a subsequent paper. Only a summary account, which will be found necessary to understand the present matter, is here supplied.

The suffix *é* (after a long vowel, *yé*) denotes things, and impersonal beings of the concrete gender: *aba-ranĩdã*, thing for disease, i.e., medicine; *ma ka testãyé*, the thing or things which I want; *ma kã te-tarastã'é*, the thing or things which I shall want. When the noun is very commonly used this *é* is generally changed to *a*: *to-ledõya*, black grouse (literally rooster, thing that roosts).

The suffix *ñn* denotes one person. After a long vowel *n* is inserted between the vowel and the suffix: after a short vowel there is reversed assimilation of the *e* to the preceding vowel: *yuttiten* (from *yuttii*, riverward), the first wife in the bigamous Ten'a household; *yunekõten* (from *yunekot*, landward), the second wife, so-called from their respective places in the house; *mor lesdõnen* (from *lesdõ*), my wife, the one with whom I cohabit; *mor rasdõ'on* (from *rasdõ*), my former or late wife, the one with whom I cohabited; *ro-ñledõnen*, a married man, one who cohabits.

The suffix *na* denotes two or more persons: *ro-ñledona*, married men (several); *ro-dadlettẽna*, married men (many).

Suffix-nouns in *en* and *na* represent personal beings of the concrete gender.

The suffix *tẽn* (often shortened to *tẽ*, in which the *ẽ* assimilates when in position to do so) denotes the time when or the place where: *lestanten*, the place where I lie down, my bed; *nalestanten*, the time when or the place where I lie down.

The suffix *tor* denotes the times when or the places where: *lestantor*, when I am in bed; *nestaih tor*, when I go to bed. It is not properly a noun-forming suffix.

The suffix *tsẽn* (often shortened to *tsẽ*, in which the *ẽ* assimilates) denotes the manner in which, the being so: *tsorõnõtsen* (from *tsorõnõ*, we live) our life, our living; *kor tsitsẽntsẽn* (from *kor tsitsen*, we are miserly), avarice; *ruzunisen*, good, goodness; *iso-ruttakatsen*, evil; &c.

Nouns in *tẽn* and *tsẽn* belong to the abstract gender.

Suffix-nouns are capable of all the constructions of root-nouns, and there is no difference between the two classes with regard to grammatical functions.

Number Differentiation in Nouns.

The greater majority of Ten'a nouns are not differentiated for number, and have the same form whether they represent a singular or a plural object. There are, however, several exceptions to this rule.

1. Suffix-nouns of the personal sub-gender normally admit number differentiation,

owing to the fact that the suffixes used in their formation are so differentiated, *en* representing singulars, and *na* plurals. Thus : *kūkāten*, trader ; *kūkātna*, traders ; *kefleten*, steersman ; *kefletna*, steersmen.

2. Suffix-nouns of the abstract gender designating time or place are capable of the same distinction, owing to the difference in meaning between the suffixes *tēn* and *tor*, *tēn* being used for one time or place, *tor* for several. Thus : *yudoo ko-nest'oihten*, at the time that I walk (or walked) down ; *yudoo ko-nest'oih tor*, during my walks down.

3. Some root-nouns representing persons can be pluralized. The pluralizers used are *kā*, and the emphazier *yu*.

The *kā* is a genuine pluralizer, serving no other purpose. It is used mainly with names of kindred. Thus : *ten'a*, child ; *ten'aka*, children (as related to parents) ; *kōya*, grandchild ; *kōyaka*, grandchildren (as related to grandparents) ; 'ot, wife ; 'oka, wives ; *kūn*, husband ; *kūnka*, husbands ; *ket'a*, younger brother ; *ket'aka*, younger brothers ; *ōza*, nephew ; *ōzaka* (in lower dialect), nephews (children of sister) ; *te'naka*, parents (used only in the plural).

The *ka* is used with : *kēla*, young man ; *kēlaka* or *kēlka*, young men ; *Blikana*, American ; *Blikanska*, Americans.

The emphazier *yu* is used as a pluraliser with nouns that do not admit the *ka* ; as : *ten'a*, man, human being ; *ten'ayu*, men ; *ūra*, elder brother ; *ūrayu*, elder brothers ; *ōda*, elder sister ; *ōdayu*, elder sisters ; *tādzā*, younger sister ; *tādzayu*, younger sisters ; *l'a*, uncle (mother's brother) ; *l'ayu*, uncles ; *tōya*, uncle (father's brother) ; *tōyayu*, uncles ; &c. The word *yenayu*, meaning the relatives taken collectively, is used only in the plural. The words *rotana*, inhabitant, and *neñhoroten'a*, people, are used indifferently for singular and plural ; when representing a plural, however, they may, at the speaker's option, take the *yu* : *rotanayu*, *nenkoroten'ayu*.

4. Foreign words designating persons also admit of a plural in *yu*, as : *kesak*, white man ; *kesakyu* or *kesakayu*, white men ; *mainel*, miner ; *mainelyu*, miners ; *toyon*, chief ; *toyonyu*, chiefs ; *sistel*, sister, nun ; *sistelyu*, nuns ; *Alusen*, Russian ; *Alusenyu*, Russians.

5. The noun *kēla*, young man, besides the *ka*, can also take the *yu* : *kēlka* or *kēlkayu*, young men.

6. Two nouns have, apparently, an irregular plural ; but they are evidently suffix-nouns, slightly altered. They are : *sōltān*, woman ; *sōltānd*, women ; *tenagt'on*, girl ; *tenagottāna*, girls.

7. Of all impersonal beings, dogs are the only ones that enjoy the plural mark *ka* : *tīk*, dog ; *tīka* or *tēka*, dogs (for *likka*) ; *tīkōza*, pup ; *tīkōzaka*, pups.

Apart from these exceptional cases the number of a noun is not expressed by a modification of the noun itself, but by a modification of the verb to which this noun stands as subject or object. When the noun stands as subject to a verb we have the usual method of using the singular or plural persons of the verb, but even this has its limitations, and cannot be practised as extensively in Ten'a as in other languages. For the only subjects that can be constructed with the plural persons of a verb are those of the personal sub-gender. Whenever an impersonal or an abstract noun is the subject, the verb has to be in the third person of the singular, as in the well-known Greek instance : *ta zwa pexei*. We cannot, e.g., say : "the trees are big," but we must say : "the trees is big," and as we have no difference between "tree" and "trees" we must resort to some other means to make the plural known. The Ten'a process consists in an alteration of the verb root, which is done in two ways :—

1. An altogether different root is used. Thus : *lesdo*, I stay ; *dadlettē*, many stay ; the roots *do* and *tē* express the same idea, viz., "to stay," but one conveys the notion of singularity or non-plurality, the other that of plurality or even multiplicity. Similarly : *lestān*, I lie down ; *ledzēt*, many lie down ; *ko nest'oih*, I walk about ;

ko-idedat, many walk about. The difference in roots is also used to distinguish between singular and plural objects, as in: *ettkūt*, I take (one); *ettzuih*, I take (many or several); *etttsi*, I make (one); *esrōih*, I make (several, many); *tlo es'oih*, I give (one); *tlo esla*, I give (several, many); &c.

2. The same root is preserved, but is slightly altered to what will be described later as the *Multiple* form: with this a special *ye*, *ne*, or *yen*, called *multiplier*, is added to the verb. Thus: *ettbāts*, I boil (one); *ye-ettbās*, I boil (many); *eslan*, I am; *ye-dilaih*, many are.

Besides these two fundamental processes, other alterations are used to the same effect, viz.: (1) The multipliers, especially *ne*, are used without change in the root: *tseba ro-ni der'ō*, a spruce-tree stands; *tseba ro-ni ne-dal'ō*, spruce-trees stand; *ko-nesenih*, I work; *ko tsidenih*, we work; *ko ne-tsidenih*, we (many) work. (2) The drawl is used on the root-syllable of the verb: *kelet uderékāh*, he bought a skin, or a few skins; *kelet uderékēt*, he bought many skins. (3) The multiplicity or quantity may be denoted by an adjective qualifying the noun: *ranoya lōne narat'an*, I saw many deer; *dinka nekore atan*, he has much money (lit. big money); &c. This last process, however, is seldom used except where no one of the foregoing is available.

As the Ten'a noun, separated from the suffix, does not express the accident of number, when it is used without specification it is always taken to represent the object signified as it naturally is (singular if it generally is so, plural if it is generally more than one). Hence it follows that nouns signifying objects which naturally are in pairs, as eyes, hands, shoes, snow-shoes, &c., unless otherwise specified, are taken to mean the pair, not one only. These nouns, therefore, are naturally plural; and when only one of the two associated objects is meant the noun has to be singularised, just as other nouns representing singulars have to be pluralised for plurals. The same happens with other nouns representing objects that are generally plural. The object singularised may be one of many or one of two:—

(1) For *one of many* the numeral "one," *kētoke*, is used in the form of a suffix-noun: *nenkoroten'a kētohen*, one of the people; *ranoya kētoke sitto niyo*, *tse sakaih kētohen yoko talyo*: one of the deer was lost and one of the boys went to look for it.

(2) For *one of two*, or of a pair. To designate one of these, excluding the other, the word *kat*, one-half of, is used: *se nora kat aba nelan*, one of my eyes (lit. one-half of my eyes) is sore; *ne mindaga kat rodē?* where is your other mitten? *mo kōna kat kālā*, he has lost one arm; &c.

The demonstratives *tātsēn* on this side, *yātsēn* on that side, *nītkootsēn* on both sides, are often used to specify one of two or both of two objects.

Construction of Nouns.

Ten'a root-nouns are never used in apposition, except, in the upper dialect, the appellation *kana*, friend; *kana Henry*, friend Henry; *sa kana Ilusha*, my friend Ilusha. In all other cases suffix-nouns must be used. Thus to say: "chief Paul" or "Paul the chief," turn "Paul, he who is chief": *Paul toyon nelanen*.

Suffix-nouns used in apposition must follow the noun which they qualify; except the numerals which may precede, but generally also follow it; e.g., *Paul kūhāten*, Paul, the trader (never *kūhāten Paul*); *nenkoroten'a kētohen* or *kētohen nenkoroten'a*, one man.

Nouns are placed in continuous construction to express some dependence or connection between them. The three ordinary relations thus expressed also require the same construction in English, viz., possession, material, and purpose.

(1) To denote possession, or relations similar to possession, the name of the thing possessed or dependent follows the name of the possessor or independent term, and takes

the emphaziser *a*, according to the rules stated in the former part of this paper : *Paul yar*, Paul's house ; *itaa roŕŕa*, my father's sled.

When the second or dependent noun is really possessed as property by the first, it generally takes the possessive article *he* : *Paul he tellŭdla*, Paul's gun. The same occurs if a very special attribution, though not a real possession, is meant : *tēna he toyona*, our chief.

When the second or dependent noun represents a person of kin it takes the possessive pronoun, even though immediately preceded by its noun : *Paul me-to*, Paul's father, lit. Paul his-father ; *su-ura me-ten'a*, my elder brother's child, lit. my elder brother his-child. I have adopted the practice of writing a hyphen between those nouns and the pronoun preceding them, as a warning that the pronoun is not detachable.

When the second or dependent noun represents a part of the body or its whole, the possessive pronoun may be used before it, at the speaker's option : *Paul tté*, or *Paul me tté*, Paul's head. Some speakers extend this practice to many other nouns, but this is ridiculed as childish by the best and most correct critics.

When the first or independent noun represents an abstract thing, the second takes the prefix *ro* : *Yukon rodtela*, the Yukon mountains ; *yūdoo rokanōga*, the lower dialect, lit. the language of the down-river region. If this second noun has already the possessive article *he*, the *ro* is prefixed to this : *Nulato roke toyona*, the chief of Nulato.

(2) Nouns are also placed in continuous succession to denote that the second represents a thing made of the material designated by the first. Thus : *teken midōya*, a board canoe ; *kéh midōya*, a birch-bark canoe ; *tsobé tlut*, an iron tie, i.e., a chain ; *kōn tū* ruin water ; &c.

The words *yar*, *kōnōn*, house, are exceptions to this rule because they designate primarily the space enclosed, not the structure ; they are not *of* the material, but *within* it. So we say : *lo'on yi yar*, a stone-house, lit. a house in the stones ; *teken yi konon*, a log house, lit. in the logs ; &c.

(3) The continuous construction also marks that the second or dependent noun represents an object used for some purpose signified by the first, as : *sān kōnōn*, summer house ; *korudenihc yar*, work shop ; *nōrōlūn ttok*, goggles, lit. glasses for the blink.

Nouns constructed as objects of verbs or prepositions always precede these.

Compound Nouns.

Roots may be associated to form compound nouns. The more common combinations are :—

(1) Juxtaposition of two nouns : *menkāt*, lake, from *mén*, swamp and *kat*, hole ; *tłākāt*, fire-place ; *tłēkāt*, grave, lit. bone-hole ; *kaledzuihila*, toes, lit. foot-fingers.

(2) Association of a noun and preposition : *kūtken*, base of the neck (*kūt*) ; *kattora*, sole of the foot ; *yōbāra*, horizon, lit. edge of the sky ; *tobāna*, beach, lit., border of the water ; *dzannidzet*, midday ; *ketšūnidzet*, midnight ; *dzāndōtōkōt*, week, i.e., between the days ; &c.

(3) Suppression of the variable pronoun-part in verb, thus leaving a word composed of the prefixes and root of the verb, and used as an abstract noun (i.e., representing the abstract idea, but belonging to the concrete gender). Thus, from—

so-degetsih, I rejoice ; *sōtsih*, joy.

su-dego'ot, I play ; *su'ot*, play.

rogenēk, I tell ; *rōnēk*, news, report.

ho-nesenih, I work ; *kōinih*, work, job.

yetkoih, it dawns ; *yekoih*, light.

mu-utalegeyon, I am armed ; *mu-utayōna*, weapon.

J. JETTÉ.

Burma.

Brown.

Cheating Death. By R. Grant Brown.

13

My Burman servant has just told me of a practice which he says is very common in Burma, but which is hardly exceeded in childlike simplicity by the customs of the most primitive savages. It is illustrated in the following account of a ceremony at which he was present.

A few years ago his sister's husband, a Government surveyor, lost a brother at Dabein in the Pegu district. A younger brother was taken ill at the same time. Some days after the death of the young man his mother dreamt that she saw him leaving the house with the boy on his back. It was then decided that no ordinary treatment could save the child, and that an attempt must be made to cheat the King of Death. The boy's body was carefully measured and a bamboo cut to the exact length. His hair, finger-nails, and toe-nails were cut and the pieces placed in the bamboo, which was then covered with his clothing and lifted by two persons, one taking each end, into a coffin amid silent manifestations of grief and whisperings that the child was dead. The boy was in the room, and it was necessary, of course, to act without his knowledge. The coffin was nailed down and carried to the cemetery followed by a procession of mourners, who repeated again and again that the child was dead. Passers-by who were not in the secret took the funeral for a real one. At the cemetery a monk was in attendance, and preached the usual sermon and offered up the usual prayers for the soul of the dead boy, while a layman let water fall in drops from a cup. Those present were then called upon for the usual cheers (*thadu, thadu*), and the coffin was lowered into a grave which had been prepared and covered with earth. All this was of no avail. When the mourners reached home the child was dead.

R. GRANT BROWN.

REVIEWS.

Australia, Central.

Strehlow.

Die Aranda und Loritja-Stämme in Zentral-Australien. By C. Strehlow. 14
Veröffentlichungen aus dem Städtischen Völker-Museum, Frankfurt am
Main. 2 vols. Frankfurt: Baer, 1907 and 1908. Pp. Teil i, 104; Teil ii, 84.
28 x 22 cm.

Anthropologists owe much gratitude to Baron von Leonhardi, who has induced the Rev. Mr. Strehlow to write down his lore about the Aranda (Arnta) and Loritja (Luritja) tribes, and has annotated the text. Mr. Strehlow worked as a missionary among the Dieri (1892-95), and since 1895 has studied the Arunta, his base being Hermannsburg on the Finke river. He is master of the Arunta and Loritja tongues, which gives him a great advantage over Europeans who communicate with the natives in pidgin-English, or through an interpreter. He has dwelt long with his people; he is not a mere visitor. On the other hand, his best informants are clothed (at least the men, when they are photographed), while the Arunta of Messrs. Spencer and Gillen offer us the truth naked. Again, many of Mr. Strehlow's men are Christian catechumens, while, as he is a missionary, he cannot in honour patronise by his presence the initiatory and other secret rites. But I am also in honour bound to say that Mr. Strehlow appears to give the truth, as far as he knows it, candidly and without prejudice. If he speaks of a "*Himmels-gott*" among his tribes, a "Supreme Being," and says that the Arunta "have raised their own fathers to the rank of gods" (as Mr. Hartland reports in *Transactions of the Oxford Congress*, Vol. I, p. 23), I take these terms as merely showing how Mr. Strehlow himself envisages the native beliefs. Probably they have no term answering to our "God," but as Mr. Tylor

writes that "great gods make their appearance . . . wherever a savage or "barbaric system of religion is thoroughly described," Mr. Strehlow, in his use of the word "gods," follows the example of a very cautious student (*Primitive Culture*, Vol. II, p. 248). For my part I would now write, in place of "Supreme Being," "superior being," and in place of "God," or "god"—in Australian religion—would put "all father." This terminology, I hope, can give no offence to the most sensitive mind.

In Arunta tradition Mr. Strehlow finds "a highest good being" (*mara* being the Arunta for "good") named Altjira. He is "eternal" (in Arunta *ngambukala*); the term is clearly the *ungambukala* of Messrs. Spencer and Gillen. They render the word "self-existing, or made out of nothing," and apply it to two beings who came out of the western sky, *Alkira aldorla* (*Native Tribes of Central Australia*, p. 388). Whether their *Alkira*, "sky," is connected with Mr. Strehlow's *Altjira*, the superior being, who lives in the sky (*alkira*), I know not.

Altjira is a huge red-haired man with emu feet, his wives (*tuéera*, "the fair ones") have dog's feet: his many sons take after him, in feet; his daughters take after their mothers. The emu feet remind us of "the Great Ulthaana of the Heavens, *alkirra*," whom Mr. Gillen found among the Arunta. Ulthaana has emu feet; his name means "Spirit," he is monogamous. The capital letters are Mr. Gillen's, not mine, by the way (Gillen, *Horn Expedition*, Vol. IV, p. 183). I can hardly doubt that Mr. Gillen came across a variant of the belief described by Mr. Strehlow. The land of his Altjira, above the sky, is a paradise with plenty of water, fruits, birds, and beasts; the stars are Altjira's camp fires. Altjira is "the good God" of the Aruntas known to both men and women; he neither made nor troubles himself about men. The Arunta neither fear nor love him. In that case it is not apparent how Altjira can be called "the good God," but "good" (*mara*) he is styled. He is a powerful, uncreated being above, with grotesque attributes; we may infer that, as uncreated, he is understood to be eternal, but that is only an inference.

When we compare Mr. Strehlow's account of what the native tradition is, and lay aside his way of envisaging it—that Altjira is an eternal god—we probably understand the facts. Altjira is much the same sort of sky-dweller as Mr. Gillen's Great Ulthaana, or Spirit, of the Heavens. He takes even less interest in men than does the Atnatu found by Messrs. Spencer and Gillen among the Kaitish. It is true that Messrs. Spencer and Gillen found no sky-dweller among the Arunta, but Mr. Gillen, alone, was more successful. It cannot well be argued that Mr. Gillen came across Aruntas contaminated by Christian teaching, for an otiose emu-footed being, even though styled "good," "has no certain warrant in holy writ, but is rather repugnant to the word of God." I am therefore left to suppose either that the Arunta of Messrs. Spencer and Gillen had a sky-dweller and lost him, or that the Arunta of Mr. Gillen and Mr. Strehlow have advanced to the idea of a sky-dweller, while the other Arunta have not.

Whether the Baiame of the Euahlayi and Kamilaroi is a revised, corrected, and considerably augmented edition of Altjira, or whether Altjira is an obliterated and obsolescent Baiame, every one will decide in accordance with his prepossessions; or, in Mr. Hartland's phrase, according to "the axe he has to grind." At this moment I see but slight proof of either opinion; still I do see a new point.

Mr. Strehlow introduces, as what he calls "totem gods," certain *Altjirangamitjina*, "eternal and uncreated," or *Inkara* (deathless) beings, who, when all the world was water, lived on emerging peaks. Finding nothing to eat they went up and poached in Altjira's country. Meanwhile plenty of undeveloped human forms lay near the rocks below. When Altjira forbade the *Altjirangamitjina* to poach in his preserves, one of them took a stick and smote the water, saying, "Get out!" The waters

withdrew, and plenty of Altjirangamitjina, who had been living underground, emerged. These were mostly in human shape, and magically endowed; they would, and did, take bestial shapes, and every man now has his *iningukua*, that is, if his totem be the kangaru, the *altjirangamitjina*, who is, as it were, the ideal kangaru, is his guardian and protector. His mother's *altjirangamitjina* is called *altjira* "for short." These creatures of long name appear to be a variant of the Alcheringa folk of Messrs. Spencer and Gillen. All use of the term, "totem gods," causes confusion; Mr. Tylor has tried the term "species-deities." The souls of the A. J. (for short) live under earth, or are connected with churinga, at certain localities like the *Oknanikilla* of Messrs. Spencer and Gillen.

Mr. Hartland says that, according to Mr. Strehlow, "the Arunta have raised their "own forefathers to the rank of gods." But I do not see that these beings are forefathers, or ancestors, of men; or that they are gods. To call them "totem gods" is only Mr. Strehlow's way of speaking. Take the story of "the divine kangaru," which Mr. Strehlow gives in Arunta, with an interlineal translation. All philologists must thank him for what no other man has given us, several Arunta texts. But the kangaru of the story has nothing "divine" in our sense; he is only an Alcheringa kangaru, not a god, in any accepted sense of the word.

The Tukura of the Loritja is much like the Altjira of the Arunta. He, too, has emu feet, but he is monogamous, and Mr. Strehlow surmises that Mr. Gillen picked up rather a Loritja than an Arunta myth in the case of the sky-dweller. Like Atnatu, among the Kaitish, Tukura patronises ceremonial rites; Altjira does not.

Another paper would be needed for the consideration of Mr. Strehlow's chapter on the totemic ideas of the Arunta and Loritja. If I rightly understand him to mean that the "totem gods" (as he calls them) prosper the work done by men in the magical ceremonies for the propagation of the totem species, animal and vegetable, still I do not think that they better deserve the name of gods than do the *Mura Mura* of the Dieri. The *Mura Mura* are appealed to, and ceremonies are done, when rain is needed (Howitt, *Native Tribes of South-East Australia*, pp. 395, 396). They are "supplicated," and supplications are prayers. The *Mura Mura* are at least as much "gods" as the Loritja "totem gods."

The work of Mr. Strehlow seems to me essentially scholarly. He has taken great pains in collecting and sifting evidence; he has given us our first Loritja as well as our first Arunta texts; which is not much to the credit of English scholarship. His photographs and his designs of native decorative patterns are excellent. If I do not approve of his terminology—"god," "totem god"—it is because such words may be attributed to bias on his part, as a missionary or as a theorist; and we more and more perceive the need of extreme caution. I, myself, believe that even Tukura and Altjira are the germs, in savage thought, of the highest of all religious conceptions, while the *Altjirangamitjina* may, under favourable circumstances, develop, on one side, into the Olympians of Homer; on the other into the Ideas of Plato. In any case, even if some of Mr. Strehlow's terms may mislead, his narrative enables us to correct possible misconceptions. No one should henceforth write on Mr. Strehlow's tribes who has not mastered his valuable volumes.

I do not wish to be understood to mean that Mr. Strehlow enables us to correct the work of Messrs. Spencer and Gillen. It is certain, I think, that Mr. Strehlow and they never consulted the same informants. Only a few miles may have lain between these regions, but variety, not orthodoxy, is the characteristic of myth, and the English and German students may have come across variants. A. LANG

Scotland : Pigmentation.

Tocher.

Pigmentation Survey of School-children in Scotland. By J. F. Tocher, B.Sc. (From *Biometrika*, Vol. VI., pp. 130-235, and Appendix of Tables (pp. 67) ; 19 diagrams and 78 maps.) Cambridge : University Press, 1906. 28 x 20 cm. 15

The publication of this memoir by Mr. Tocher, following that by Mr. Gray in the last volume of the *Journal of the Institute* (XXXVII, pp. 375-400), marks the practical completion of the really magnificent survey of school-children in Scotland carried out, by the voluntary assistance of the teachers, under the direction of a committee consisting of Sir William Turner, Professor R. W. Reid, Mr. Gray, and Mr. Tocher. How freely the aid of the teachers was given may be judged from the fact that data were obtained for 502,155 children out of, we gather, a maximum possible of some 646,000, the lists of names and schools of the co-operating teachers occupying over twenty-two pages of the Appendix. The main burden of the clerical work, the forwarding and receipt of the schedules, and the reduction of the data, fell on the shoulders of Mr. Tocher, with the assistance of a small staff, and he has fairly earned the thanks of all anthropologists for this persevering labour. Their gratitude is no less due to the committee for the careful and prolonged consideration that must have been given to the organisation of the work.

As the present memoir includes some late returns, received after the completion of the tables on which Mr. Gray's memoir is based, the general summary of the results may perhaps be reproduced. It is based on observations of 257,766 boys and 244,389 girls between six and eighteen years of age.

HAIR-COLOUR.—PERCENTAGE DISTRIBUTION.

—	Fair.	Red.	Medium.	Dark.	Jet Black.
Boys - - -	24·95	5·49	43·28	25·03	1·25
Girls - - -	27·43	5·09	40·87	25·40	1·22

EYE-COLOUR.—PERCENTAGE DISTRIBUTION.

—	Blue.	Light.	Medium.	Dark.
Boys - - -	14·66	30·31	32·72	22·31
Girls - - -	14·87	30·31	32·06	22·76

The distribution of eye colours in the two sexes is, it will be seen, about the same, but there are curious differences in the case of hair-colour. Mr. Tocher suggests that this may be due to the earlier darkening of the hair in boys, the development of the pigmentation being possibly stimulated by hair-cutting, or merely to differences in judgment caused by the greater mass of hair in girls and variation in tint from the root to the tip of the hair. The statistics have not yet been classified by age-groups, so the first hypothesis cannot be tested. It is also possible that there may be some difference in the average age of the two sexes.

The local distribution of pigmentation is, in certain cases, very well marked. An excess of blue eyes and, with some exceptions, of fair hair, occurs mostly in the north and north-east of Scotland ; of blue eyes in conjunction with dark or jet-black hair in the western Gaelic-speaking counties. In the case of red hair the only region in which there is a noteworthy excess is Banff and Aberdeen.

Densely-populated districts generally show a slight excess of medium hair, e.g., 47.15 per cent. at Govan, 45.4 per cent. at Leith and Dundee, 45.3 per cent. at Glasgow for boys, as compared with 43.3 per cent. for the country as a whole. The possible reasons for this are discussed by Mr. Tocher in a special section. The hypothesis that it may be due to an excess of the medium-haired amongst the immigrants into towns is rejected, for reasons which we refer to again below, and three possibilities are then discussed: (a) Darkening of the hair may occur earlier in towns. (b) The medium class may be the most fertile. (c) The excess may be due to the blending of fair and dark, and the greater prevalence of random mating in towns. The first theory is at present, as Mr. Tocher admits, purely hypothetical. The second he supports by showing that there is a considerable positive correlation between the number of births per family and the percentage of medium-haired in the divisions of Scotland, and concludes that "the medium-haired, medium-eyed, and populous lower classes are more fertile than the remaining population, and this factor is probably operating in favour of producing distinct excess of these classes in the more densely populated areas of Scotland where they are found" (p. 192). This argument does not, however, seem very strong, for surely if it is desired to know whether any one class tends to increase more rapidly than another, a measure of true fertility, such as Mr. Tocher has attempted to obtain, is not required, but merely the difference between the crude birth-rate and the crude death-rate. A correlation of such increase-rates with pigmentation data would throw more light on the question at issue than a correlation of fertilities, though any conclusion would have to be accepted with reserve in view of the complexity of the factors. If Mr. Tocher is right in associating medium hair with the lower classes, his conclusion is very probably right although unproven, as the increase-rates of the lower classes are generally above those of the population at large. The question of death rates is, however, quite as important as that of fertility, and Mr. Tocher makes no reference to Dr. Shrubbsall's important conclusion that urban life tells most heavily on the blonde type (*British Medical Journal*, Dec. 1904), and hence would tend to create an excess of medium and possibly of dark.

The third theory, as to blending, appears almost as hypothetical as the first. Nothing is really known at present as to the mode of inheritance of hair-colour in man, but, as Mr. Tocher states, "the proof or otherwise of the validity of the theory will be forthcoming when the results of direct observation on parents and offspring have been made, tabulated, and analysed." While it seems to us that the excess of medium-haired in urban districts is probably mainly due to selective death-rate, as indicated by Dr. Shrubbsall's work, we venture to think that the idea that part of such excess may be due to what may be termed "selective immigration" is worth more investigation. "If there was any special force," Mr. Tocher says, "tending to send medium-haired and dark-eyed persons in from the country to towns that would explain the excess. But no such force is known to exist." Certainly, but it appears most improbable that if pigmentation has a real significance as regards race, it should have no significance as regards temperament and the consequent attractiveness of town life. The data that he adduces to show that none of the populations from whom external immigrants are drawn exhibit an excess of the medium class do not entirely meet the point, and although we note his statement (p. 191) to the effect that "it has been proved" that neither foreign immigrants nor immigrants from rural districts at home can explain the excess of medium hair, we have failed to find the proof respecting the latter class. The whole of Mr. Tocher's discussion is, however, somewhat lengthy, and the reader should in fairness refer to the original. We have noticed the point at some length, as the problems connected with the influence of town life are of high sociological importance. Mr. Tocher's detailed discussion of the distribution

of pigmentation in Glasgow, to which we can only refer, is also of great interest in this connection.

In so voluminous a memoir there are naturally many points on which a reviewer may differ from the author or desire further information, but we propose to refer to two only, which are somewhat fundamental. In the first place, the value of pigmentation data, such as are obtained from this survey, depends primarily on the definiteness of the colour classes and the consistence of the observers. On this head the information is by no means so full as might be desired. The use of samples or colour cards was found to be impossible, and the observers, as in most previous surveys, had to depend on verbal instructions. The results obtained in certain cases, we are not told how many, from the written instructions, were compared with those obtained from the use of samples, and "It was found that both sets of figures closely agreed, and the results were therefore "considered very satisfactory" (p. 134). But these results, which were so very satisfactory and on which the exact weight to be attached to many of the conclusions of the memoir is entirely dependent, are not given. Mr. Tocher may not attach so much importance as the present writer to the variations of personal equation in the naming of colours, but the omission of these data is neither courteous to the reader nor fair to himself; the sceptic will not be reassured by Mr. Tocher's recent controversy with Dr. Beddoe (Max, 1907, 48, 82), and will note that observers have to judge when a hair-colour approaches "more to red than to brown or flaxen," have to distinguish between "*very light* brown" (which is *fair*) and "brownish" (which is *medium*), between "chestnut-brown" and "dark brown," and between "black" and "jet black," and in the case of eye-colour between a "light blue" and a "deep or pure blue," between "light grey" (which is *light*) and "grey" (which is *medium*), between "*very light* hazel" and "hazel-brown."

The sceptic will also note the alleged change in the pigmentation of school-children in East Aberdeenshire between 1896 and 1903, and the fact that "the first "survey had a wider range of medium and a slightly wider range of red" (p. 219). It is to be hoped that Mr. Tocher will take the opportunity that will be afforded by the further publications that are promised, to give much fuller information on this head. The magnitude of errors of observation is of importance, in the first place because the differences observed between small samples of a population do not depend only on pure fluctuations of sampling as calculated by the theory of error, but also on the differences between observers. Mr. Tocher is, of course, fully aware of this, but he hardly appears to attach sufficient importance to the possible results.

The second criticism that we have to offer relates to the methods adopted in the present memoir for the treatment of the data. In the first place, with all respect, we venture to suggest that they are, within limits, misleading. The point is this: that when writing of the difference between any one district and, say, the whole of Scotland, Mr. Tocher is never considering the difference between the figures that have actually been observed, but merely the chance that the observed difference might have occurred as a simple fluctuation of sampling. The result is that when writing of a large and populous city, like Glasgow, a comparatively small difference is spoken of as if it were enormous, whereas precisely the same difference, in a smaller district, would be spoken of as small. To the reader who fully realises the method, and the strict meaning of the result, this may be all right; but to the physical anthropologist who is not skilled in modern statistical methods, and takes Mr. Tocher's words in their literal meaning, it is most misleading. It may be as well to enforce the point by an illustration. "It has been shown," says Mr. Tocher (p. 200), "from the results of the present analysis that the great western city *diverges in an extreme degree*" (my italics) "from the rest of Scotland, not only in the distribution of hair-

"colour of its school population, but also in the distribution of eye-colour, both for "boys and girls." These are the figures for eye-colour in boys:—

EYE-COLOUR.—PERCENTAGE DISTRIBUTION: BOYS.

—	Blue.	Light.	Medium.	Dark.
Glasgow - - - -	11.00	30.57	33.78	24.36
All Scotland - - -	14.66	30.31	32.72	22.31

If the difference between Glasgow and the rest of Scotland is "divergence in an extreme degree," what superlative phrase, the ordinary anthropologist may well ask, is left to describe the difference between the latter and the "children with foreign surnames" in the Adelphi Terrace School, Glasgow?

EYE-COLOUR.—PERCENTAGE DISTRIBUTION: BOTH SEXES.

—	Blue.	Light.	Medium.	Dark.
Children with foreign surnames, Adelphi Terrace.	1.71	17.71	18.86	61.71
All Scotland - - -	14.76	30.31	32.40	22.53

The phrase "extreme divergence" as applied to Glasgow is, indeed, almost absurd, as Mr. Tocher may, perhaps, admit if he will consider the results of a rigid application of the same method to statistics of stature. On the same principle he might speak of a difference in average stature between two populations of only 0.05 inches as "an enormous difference in stature," provided only that the (measured) populations were 1,000,000 each. In such a case as that of Nature he would probably give, in the first place, the mean statures and their probable errors, or the differences between mean statures and their probable errors, as the most important data. Why should not pigmentation data be treated similarly? Why should only relative figures be given? The exclusive use of the method of classifying differences, not according to their magnitude but solely according to their significance, seems, indeed, very difficult to defend, and it is used as a principal when it should be a subsidiary method. The *difference* is what the anthropologist wants to know, and for that he must refer to the tables of the appendix; *a possible interpretation of that difference* is all that Mr. Tocher's "relative local differences," classifications into megalo-, meso-, and micro-metric, and "divergencies" will give him. If districts did not vary much in size (numbers), Mr. Tocher's measures would afford fairly close indications of the absolute differences, but unfortunately they vary largely. If the absolute figures instead of the "relative local differences" and so forth had only been made the basis of the work, the memoir might not only have been made much more comprehensible—and surely perspicuity is one of the principal virtues to be attained in a Report of the present type—but would really have been even more valuable. It is unfortunate that an anthropologist of the older school, wishing to make himself acquainted with the results of this survey, which has no parallel in the British Isles, should arrive, after the first few pages only, at such a section as Mr. Tocher's Section (5) concerning hypergeometrical series, leptokurtosis, and other technical mysteries, and it is to be feared that he will merely drop the rest of the memoir and proceed to the Appendix. Might not some of the fundamental simplicity of the Appendix have been imported into the memoir, and some of the greater abstrusities (the word is not in the dictionary, but is more comprehensible than leptokurtosis, which is not there either) have been relegated to the Appendix?

G. U. Y.



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4

CANOE ORNAMENTS FROM S.E. BRITISH NEW GUINEA.

ORIGINAL ARTICLES.

New Guinea.

With Plate C.

Seligmann.

A Type of Canoe Ornament with Magical Significance from South-eastern British New Guinea. By C. G. Seligmann, M.D. **16**

It has long been known that the large built-up canoes (*waga*) of South-eastern British New Guinea are elaborately decorated, and, though I have for some time suspected magical significance for much of this decoration, I have only recently received convincing evidence of this.

The ornaments in question are the wooden carvings, examples of which are shown in Plate C, and which upon Murua are called *munkuris*. Before describing these *munkuris* I may briefly refer to other ornamentations on the canoes to which a magical significance may, perhaps, be attributed. The fish carved upon the sides of the *waga* (which were not usually regarded as totem fish) were sometimes said to have been carved in order that the canoe might travel swiftly, and although this was more often denied than asserted it seems reasonable to believe that their presence may have, or once have had, magical efficacy. On the other hand, the large white cowrie shells with which the carvings at the two ends of the *waga* are commonly decorated never appeared to have any magical import. The same applies to the carvings themselves, although the fact that birds, some of which may be totems, are represented upon these carvings suggested a magical purpose. Beyond the facts that the natives of Murua were not eager to part with the *munkuris* carvings, and that on several occasions they absolutely refused to remove these carvings from canoes which were at anchor, although a tempting price was offered, no clue was obtained to suggest that these *munkuris* were of special significance until I recently had the opportunity of discussing the matter with Captain F. R. Barton, until lately Administrator of British New Guinea. Captain Barton told me that, when at Misima in the Louisiade Archipelago, he met with three or four Murua canoes bearing *munkuris* carvings. He tried to buy one of these and offered a large price for it, but the crew of the canoe, although obviously anxious to sell the carving, said that they could not do this as there was no one there who could carve another that night to serve as substitute, and without the *munkuris* they might experience all sorts of difficulties during their return voyage to Murua.*

It is clear that the *munkuris* has a magical efficacy, and, being recently engaged in writing on the subject of totemism in South-eastern British New Guinea, it seemed possible that I might obtain information on this subject from an examination of the series of *munkuris* collected by the Daniels' Expedition, and now in the British Museum. As regards the provenance of these, I believe that they were all made upon Murua, though one of the specimens was obtained upon Iwa, and the label on another has perished; so that there is now no direct evidence as to where it was collected.

There are other *munkuris* in the national collection, but I have limited myself to those collected by the expedition upon Murua, since I was able to obtain the meaning of the carving of these from natives of Murua within a short time of their collection. All these *munkuris* show carving with typical bird designs.

No. 1 may be regarded as a typical *munkuris*, its base is formed by the conjoined bodies of two long-beaked birds which represent the reef heron (*boi*), the wings of these two birds coalesce to form an oval black intaglio area, which represents a fish called *asiwan*, said to live in mangrove swamps. The paired red (outer) and black (inner) intaglio areas, curved like commas, which spring on each side from the tips of the beaks of the two reef herons, represent the curve of the nautilus shell (*ovagoro*),

* A figure of a *waga*, showing the *munkuris* in position above the carved prow ornament decorated with cowrie shells, is given in a paper by Seligmann and Strong, on p. 237 of the *Geographical Journal* for 1906 (Vol. XXVII). The details of the carving of the *munkuris* are not visible, but it will be recognised by the two streamers of dried palm leaf attached to it.

as do the other much less strongly curved red intaglio areas above and below the comma-shaped intaglio. The bird's head derivatives below the highest nautilus intaglio represent the heads of a bird called *weku*, and this also applies to the pierced scrolls immediately above the lowest intaglio, supported on the head of the two reef herons. I could not ascertain the names of the three birds which form the highest part of this *munkuris*, but it is to be noted that one of these has a head at each end of its body.

No. 3 is to be explained in the same way as the last with the following exceptions. The large intaglio area between the two heads of the supporting reef herons was stated to represent *kuit*, apparently a cephalopod, the tentacles of which are not represented in the carving. The two projections at the top corners of this carving are the degenerate remains of the neck of a long-necked shore bird, the same being represented in No. 1 by the small rounded projections beneath the bodies of the two outer birds represented at its summit.

No. 5 is an interesting variant carved at Modau upon Murua, a village apparently known for the excellence of its canoes and the beauty of its canoe carvings. The bird supporting the whole ornament is again the reef heron and the black intaglio forming its wing represents the fish *asiwan*. The three birds at the top of this ornament were all called *maharakea*, the name for a tern; on pointing out that terns have not crests as the two outer birds have, my informant replied that they were nevertheless *maharakea*, and refused to consider my suggestion that they were, in fact, cockatoos or cocks; the other parts of the carving are to be explained in the same way as the carving of No. 1.

The last *munkuris* (No. 10) to be figured is of a somewhat different type, all three birds represent the cockatoo, and my attention was especially drawn to their crests. The significance of the lines lightly carved on the flat areas beneath the highest cockatoos could not be determined, the lines were called *ginigin*, the rows of scrolls beneath the central cockatoo are obviously all derived from birds' heads, but were given no special names. This *munkuris* was said to have been carved at Ruwadog, near Suloga.

In conclusion, I may point out that although the reef heron and the cockatoo are both totem birds, there is no evidence that *maharakea* is a totem, and I could hear of no crested totem bird other than the cockatoo. *Asiwan* and *kuit* are certainly not totems in that part of Murua in which these carvings were obtained, nor is *ovagoro*, the nautilus, either upon Murua or over the much wider area of the Massim district in which it occurs as a decorative *motif*. It would appear, therefore, that at the present day the magical efficacy of these carvings is not attributed directly to the influence as totems of the birds represented upon them, and perhaps the predominance of the reef heron is to be explained by the ease with which this bird skims over the crests of the waves.

Although this exhausts the main facts concerning the ornamentation of these *munkuris* with which I am acquainted, the following short notes on the remaining six specimens are added, since these will be on exhibition shortly in the Ethnographical Gallery at the British Museum.

No. 2 resembles No. 1 in general character, but the necks and heads of the birds, which are represented by mere circular excrescences in No. 1, are obvious bird heads in this specimen.

No. 4. This *munkuris* was made at Modau and closely resembles No. 5. The paired birds at the top, although crested, were called *maharakea*. The red and black intaglio areas were called *marak* and *kōn*, which appear to be the names for red and black respectively.

No. 6 resembles No. 1 in general characters. There are the remains of three birds at the top of this ornament, but only enough of one is left to call for any remark. This,

which is one of the outer of three birds originally present, has been shifted through 90 degrees from its ordinary horizontal position, so that it stands on its head. It was uncertain whether or not this bird represented the reef heron.

No. 7, which is very highly conventionalised and particularly well carved, was obtained on Iwa in the Marshall Bennet group.

No. 8 almost certainly comes from Murua, though, as its label has perished, this is uncertain. The tails of the two birds facing in opposite directions at its top, touch and seem to indicate the process by which the bodies of the two reef herons, which so often form the supporters of the rest of the carving, have become fused.

No. 9. This was carved by a boy from a village called Gossop. The pierced scroll bird derivatives were called by the name *susawir*, which appears to be a term conveying some such general meaning as carved scroll or ornamental carving. In general type this *munkuris* resembles No. 10, but only a portion of the plain wooden areas at the top of each limb of the crescent, which forms the main part of the ornament, is carved on one side; the carving on the opposite surface was said to represent the fish *asiwan*.

C. G. SELIGMANN.

England: Physical Anthropology.

Mortimer.

The Stature and Cephalic Index of the Prehistoric Men whose Remains are preserved in the Mortimer Museum, Driffield. By **17**
J. R. Mortimer.

The remains fall into three groups: (a) those of the late Neolithic or early Bronze Age; (b) those of the early Iron Age; (c) those of the Anglo-Saxon Period.

The remains are all from an area of about 80 square miles on the midwolds of Yorkshire. The cephalic indices were estimated by Dr. W. Wright, Dr. Garson, and myself. The measurements of the femora were taken *in situ* by myself.

(a) This series comprises 101 skulls, 34 being long, 28 short, and 39 of an intermediate shape. Of the 34 dolichocephalic individuals, 28 give an average femoral length of 18 ins., and a computed stature according to Beddoe's rule* of 5 ft. 7 ins. Of the 28 brachycephalic individuals, 25 give a mean femoral length of 17.7 ins., or a stature slightly higher than 5 ft. 6 ins. Thirty-five of the 39 mesaticephalic individuals had a femoral length of 17.65 ins., or a stature slightly lower than 5 ft. 6 ins.

It will thus be seen that the long-headed members of the community had the advantage in stature to the extent of one inch. This is contrary to what has been found in other parts of the country. Dr. Thurnam, for instance, as a result of an examination of the remains in the south of England, gives 5 ft. 6 ins. as the stature of the dolichocephalic individuals, 5 ft. 9 ins. as that of the brachycephalic.

The cephalic indices of ten skulls are given by Professor Rolleston in Greenwell's *British Barrows*. Of these skulls five are long and five are short. Of the five long-headed individuals only the stature of two is given, it is 5 ft. 9 ins. and 4 ft. 8 ins. Of the five round-headed individuals the stature of four is given—5 ft. 8 ins., 5 ft. 1 in., 5 ft. 7 ins., and 5 ft. 9 ins. The series is so small as to have little weight one way or the other.

(b) The remains attributable to the early Iron Age mainly are from the Danes' graves, Driffield. They comprise 53 skulls, of which 37 are dolichocephalic, 2 brachycephalic and 14 mesaticephalic. Of the 37 long-headed individuals the mean femoral length of 28 is 17.2 ins., with a computed stature of 5 ft. 4.6 ins.; the femoral length of the brachycephalic examples is 17 ins., with a computed stature of 5 ft. 4 ins., whilst that of 11 mesaticephalic individuals is as much as 17.33 ins., with a stature of 5 ft. 5 ins. The cephalic indices and stature of 11 other individuals from these graves, whose remains are in the Museum of the Royal College of Surgeons, have recently

* *Journal of the Anthropological Institute*, Vol. XVII.

been published by Dr. William Wright.* He found 7 dolichocephalic with a mean femoral length of 42.4 cm. and a stature of 5 ft. 3 ins., 1 brachycephalic with a femoral length of 41.1 cm., and a stature of 5 ft., and 3 mesaticephalic with a mean femoral length of 42.8 cm. and a stature of 5 ft. 3.5 ins. Dr. Wright's series therefore agrees with mine in showing that the mesaticephalic individuals had a slight advantage in stature while the brachycephalic member was distinctly short.

(c) The Anglo-Saxon remains were obtained from five cemeteries at Sledmere Stoop, at Garton Station, at the south end of Great Driffield, the Meadows, Driffield, and at Acklam. With the exception of the first all were rich in relics. In addition to the above a few isolated Anglo-Saxon graves have yielded remains. The series comprises 61 measurable crania, 31 dolichocephalic, 7 brachycephalic, and 23 mesaticephalic. Twenty of the dolichocephalic individuals have a mean stature of 5 ft. 5 $\frac{1}{4}$ ins.,† the 7 brachycephalic examples had a mean stature of 5 ft. 4 $\frac{1}{4}$ ins., while 15 of the mesaticephalic members had a mean stature of 5 ft. 3 $\frac{1}{4}$ ins. These measurements show that the long-headed persons were taller than those with short heads by more than an inch.

J. R. MORTIMER.

New Zealand.

Edge-Partington.

Maori Burial Chests. (Atamira or Tupa-Pakau. By J. Edge-Partington. 18

By the kindness of Mr. Alexander Turnbull of Wellington, New Zealand, I am able to reproduce a photograph of his collection of Maori burial chests (wooden) for containing the bones of deceased chiefs. Owing to the secrecy attached to their disposal and to the tabu which surrounded the last resting place of the dead, these chests are of extreme rarity, there being no specimen, as far as I know, in this country. There are specimens both in the Dominion Museum, Wellington, in the Auckland Museum, and in the Melbourne Museum, figured in the *Album*, Third Series, Plate 156. Hamilton, in *Maori Art*, figures one (p. 158) in his collection, which was found in a cave near Auckland, with the one in Melbourne. In *Zeitschrift für Ethnologie*, Vol. 37, p. 971, Herr Baessler describes and figures those in the Auckland Museum. He says they were made of pine, and were accidentally discovered in a cave at Waimamaku, near Hokianga, north of Auckland. When found those figured on plates x and xii were leaning in a semi-upright position against the back wall, those on plate xii and the covers figured in the text rested in a similar position on the two sides of the entrance to the cave; with them were found remains of skeletons which had evidently fallen out of the chests owing to the lids coming off. These lids had been fastened by means of four holes corresponding to the four holes in the sides of the chests, one at each corner. The chests were in such a good state of preservation that it is evident they were not used at the first burial, but for the bones of the deceased which, after being dug up and cleaned, were deposited in them for their final interment. The covers only of these particular chests were smeared with red-ochre (Kokowai). Mr. Cheeseman, the Director of the Auckland Museum, is of opinion that these chests are over 200 years old.

Mr. Turnbull gives the following description of those in his collection: "The chests are hollowed at the back and have evidently been fitted with lids, because the holes are still visible in the sides where the pegs or flax fastenings were inserted for tying them on. There are several peculiarities to be observed in my set. In every specimen there is the same 'wing'-like carving at the sides with three undoubted claws—not fingers—and in No. 3 there are web feet, giving the impression that the carvings all represent birds. In Nos. 2 and 3 the tongues have serrated edges, and Nos. 2, 3, and 4 have the ears pierced. No. 1 has a 'heru' or comb, and two of the

* *Archæologia*, Vol. LX., pp. 251-322.

† Estimated by Thane's formula in Quain's *Anatomy*.

" four claws are inserted in the mouth. No. 3 has a very curious carved neck ornament, the like of which I have never seen. Nos. 2 and 3 have each a blind right eye. The carvings are clearly of varying ages, and instinct leads me to place them in order of time as follows, beginning with the oldest :—four, six, two, three, one, five. No. 6 is 18 inches high, and this will give the relative sizes of the others. The larger chests might hold the entire skeleton of an adult, but the smaller ones certainly would not ; and No. 6, the smallest, would not take the bones of an infant, still it had a lid at one time and was for holding something. Captain G. Mair says it was for the placenta. Some of the chests have been painted with red ochre."



" It is surprising what a small amount of information can be obtained about these chests, and I can find no myth or legend that would explain the bird-like carvings of the bodies."

J. EDGE-PARTINGTON.

Africa, East.

Kikuyu Calendar. By Hon. K. R. Dundas.

The Kikuyu divide the year into two seasons as under :—

1. *Kimera kya Mweli* : July to January.
2. *Kimera kya Njahi* : February to June.

Their language does not appear to possess a word answering to our word year (i.e., all twelve months), the word *Mwaka* signifying merely a rainy season.

Dundas.

The circumcision of the boys and girls occurs in the same months; the season in which it takes place depending on whether they live in Ruguru (the West) or Ithereru (the East), if the former in *Kimera kya Njahi*, if the latter in *Kimera kya Mweli*.

The month commences with the first day of the new moon and lasts thirty days. Each month has a name.

There are no names for the days of the week, but the days of the different markets serve to signify any particular day. Each market is held every fourth day and no two markets in the same neighbourhood are held on the same day. Appended is what may be called a Kikuyu calendar.

The months when the circumcision takes place are carnival months; dancing, singing, and general rejoicing being the order of the day.

Kathanokomo (June) and *Moga* (January) are called the Semisu months when the harvest is brought in.

FIRST SEASON, JULY TO JANUARY—KIMERA KYA MWELI.

First Month, Moriainyoni (July).—The grass and thicket is cleared by the men, and the women then burn it; it is a month of little work. The weather being cool the boys and girls commence boring the lobes of their ears.

Second Month, Moga (August).—The shambas* are dug up, the work being mostly done by the women.

Third Month, Kihu (September).—All the able-bodied population is at work in the shambas preparing for the rains; the seed is sown.

Fourth Month, Sethanano (October).—Everyone is very busy weeding in the shambas.

Fifth Month, Kanyuahungo or Tumo (November): Sixth Month, Keba (December).—The men do no work; the women and children are employed keeping the birds off the crops that are now ripening.

Seventh Month, Moga (January).—Harvest.

SECOND SEASON, FEBRUARY TO JUNE: KIMERA KYA NJAHI.

First Month, Kihu (February).—The whole able-bodied population is hard at work in the shambas preparing for the rains. The seed is sown during this month.

Second Month, Sethanano or Kethathanwa (March).—Everyone is still very busy in the shambas, the work being mostly that of weeding.

Third Month, Mothato (April).—The crops are ripening and the women and children are busy weeding and scaring off the birds. In the Ruguru (West) this is the circumcision month, a time of feasting and dancing.

Fourth Month, Mogilanjara (May).—The crops are nearly ripe and there is no work for anyone.

Fifth Month, Kathanokomo (June).—This is the *Semisu* (Harvest) month, and the work of harvesting is done by the women, the men do no work.†

K. R. DUNDAS.

Technology.

van Gennep.

Netting without a Knot. By A. van Gennep.

Dans le fascicule de mars 1908 de la *Revue des Études Ethnographiques et Sociologiques*, Miss A. Werner publie *Some Notes on the Bushman Race* où elle parle (p. 149) de petits sacs d'une facture spéciale, à laquelle elle semble disposée à donner une signification culturelle et raciale: "I do not know whether to class " among small arts which may have been handed down to these Angoni by their

*. Shamba = field or plantation.

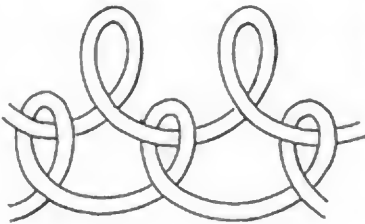
† The correct spelling of the names of the months was given me by Mr. MacGregor of the C.M.S.

"possible Bushman ancestors, the making of string bags by a process best described as netting without a knot; a row of loops is first made and increased by passing the end of the string through each one, going round and round till the desired size is reached. I never saw a bag so made by an adult, nor a specimen of more than a few inches in length; the art seemed to be chiefly practised as a pastime by children. It is interesting to note that when I showed one of these bags to the Ituri pygmies who were recently in England they recognised it at once, and said that they made the same kind at home."

Miss Werner a eu l'obligeance de m'envoyer une de ces pochettes. Je l'ai montrée à des amis ayant vécu en Afrique, notamment à Maurice Delafosse, qui m'ont dit n'en avoir jamais vu de semblables.

D'autre part cette technique est beaucoup plus difficile qu'elle ne semble au premier abord; je m'en suis rendu compte en essayant d'imiter la pochette angoni; avec du raphia, on y arrive cependant, après avoir eu soin de mouiller les fibres et de les enrouler préalablement deux par deux en manière de cordelette.

Cette technique semble réellement rare. Du moins je n'en ai pas trouvé mention dans les traités généraux d'ethnographie, ni dans les monographies d'O. T. Mason. De même les diverses techniques du tressage chez les Warundi énumérées, et décrites en détail par R. Kandt (*Gewerbe in Ruanda, Zeitschrift für Ethnologie*, 1904, pp. 394 et suiv.) comprennent toutes la formation de nœuds, qui donnent leur nom à sorte de tressage.



Par contre, voici un parallèle exact relevé dans l'Amérique du Sud, par le Dr. Théodor Koch-Grünberg. Il a trouvé en usage chez les Indiens du Brésil nord-occidental de petits filets de pêche, que l'on fixe à une liane recourbée en cerceau et qui diffèrent des grands filets, noués, en

ce que les cordelettes sont simplement passées les unes dans les autres (*einfache Schlingtechnik*). Le dessin qui accompagne l'article du Dr. Koch-Grünberg (*Der Fischfang bei den Indianern Nordwestbrasiens, Globus*, 9 janvier, 1908; pp. 21-22) et reproduit ici, montre que la technique est bien celle dont parle Miss Werner. Il est probable qu'on trouvera d'autres parallèles en consultant les monographies sur la pêche chez les populations européennes: mais je doute que cette technique puisse servir d'argument pour la détermination d'aires de civilisation.

A. VAN GENNEP.

England: Archæology.

Kendall.

Remarkable Arrowheads and Diminutive Bronze Implement.
By the Rev. H. G. O. Kendall, M.A.

21

IN MAN, 1906, 96, and 1907, 37, Mr. H. St. George Gray figured two arrowheads of remarkable fineness and unusual type. The base in one instance, at any rate, was rounded, and the edges were incurved near the point. I append herewith a drawing which shows one face and two edge views of a similar weapon. It was found by Mr. H. J. G. Hole on a farm in Dorset, whereon, also, he has picked up other arrowheads of usual types. It is dirty-white in colour, and slightly pale blueish in places. Its length is 3 centimetres and breadth 18 millimetres. It weighs 21 grains.

The drawing scarcely does justice to the delicacy of this beautiful little implement, inasmuch as the thickness of the outside line gives a very slight increase to the width. The obtuse angle on the right-hand edge of the face view should be somewhat more of a curve and less of an angle. Unlike Mr. Gray's, it has a blunt-pointed base, as seen in the picture. The other drawing shows face and edge views of what appears to be a most unusual type. It has evidently once been a leaf-shaped arrowhead, of

which one end has been accidentally broken off. Its possessor, in order to render it of service to himself again, possibly also to give it better balance, has cleverly snicked a piece out of each of the two edges, thereby affording himself an arrowhead slightly barbed. From each edge the piece has been taken out by a single downward stroke or application of pressure at right angles to the face of the flint. The latter is blackish in the middle, and of a deep amber colour towards the edges. Weight, $29\frac{1}{2}$ grains.

In both the above cases an untrimmed portion of the inner face of the flake from which the little implement was made is visible in the middle thereof.

Of the first arrowhead the outer, of the second the inner, face is shown. The outer face of each arrowhead is much like the inner, but that of the second has an unremoved rising near the middle.

The third drawing is of a metal implement, apparently of bronze, picked up by Mr. Hole two miles from Marlborough, in a road newly repaired with flint, no doubt from the Downs. In a barrow opened near Marlborough in 1907 a miniature bronze dagger or knife (?) was found in company with gold ornaments, &c. It was of rather different form from the present instrument, but,

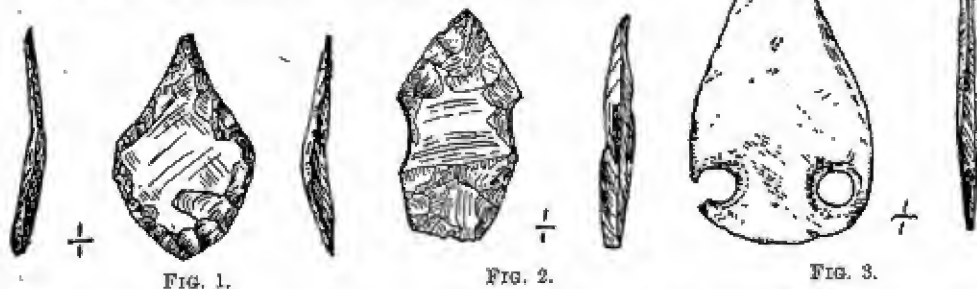


FIG. 1.

FIG. 2.

FIG. 3.

I think, of the same general type. The contents of the barrow belonged to the Bronze Age. The weight of the little tool here figured is just over $\frac{1}{4}$ oz.

H. G. O. KENDALL.

REVIEWS.

Africa : Congo.

Van Overbergh.

Les Basonge (Etat Ind. du Congo). Par Cyr. van Overbergh. Collection de Monographies ethnographiques III. Brussels, 1908. Pp. xvi + 565. 22 26 x 17 cm. Price 10s.

The series of which this volume is the third might almost be said to mark an era in the history of anthropology. Of course much, very much, remains to be done in the way of scientific investigation of the ethnography of primitive peoples, but, in order that this investigation may be as successful as possible, a knowledge of the information already collected is necessary, especially as contact with Europeans has wrought such differences during the past few years. The reports of the earlier explorers have an especial value, but these reports, made at a time when anthropology was not yet a science, are so scattered that the labour involved in their collection is most arduous, and involves a protracted search through periodical and other literature of almost every kind.

The system on which the series under review is arranged is as follows : each volume deals with a particular tribe in the Congo Free State, and contains all the passages relating to that tribe, collected from every kind of literature, reprinted at length, and arranged under the headings adopted for the *questionnaire* approved by

the *Congrès mondial de Mons* in 1905. To this is added as much new information as could be gathered, by means of that *questionnaire*, from observers on the spot, to whom were sent copies of the collected published material for comment and amplification. The new information is printed in larger type. Each page is perforated so that it can be torn out and the whole rearranged to suit the requirements of any special student, and to facilitate this object no two subjects are treated on the same page; if the matter dealing with one given subject does not suffice to fill both sides of a leaf, the rest is left blank. At the beginning of each volume is a complete bibliography of the literature dealing with the tribe in question, followed by a second bibliography of all illustrations relating to it; the latter bibliography, as the text, is divided into headings corresponding to the sections of the *questionnaire* employed. At the end is a specially prepared ethnological map, and, in the case of the volume under discussion, a few illustrations of an ethnographical nature. An index of the headings under which the information is arranged is also given. Thus a complete compendium of all that is known concerning each tribe, arranged in the manner most convenient for reference and comparison, is ready to the hand of the anthropological student or of the administrator who wishes to know something about the social life and institutions of the people amongst whom his work is to lie.

It would be worse than otiose to enlarge on the extreme value of such a series, and it is of the happiest augury for the future of the Congo Free State that it should be found possible in Belgium to issue successfully a collection of monographs which renders administration on proper scientific lines a reasonable possibility.

Another point of interest is found in the fact that these monographs are a vindication of the *questionnaire*, which has of late been attacked by some whose opinions are certainly of weight. It is true that this particular *questionnaire* is capable of considerable improvement; but, with all its limitations, it can, judged by results, be called a success. Volumes dealing with the Bangala, Mayumbe, and Mangbettu have already appeared, and one on the Waregga is promised shortly. The subject of this particular monograph, the Basonge, a tribe belonging to the great Baluba family, and situated roughly between the Sankuru and Lualaba and $4^{\circ} 30'$ and $6^{\circ} 30'$ of south latitude, is of especial interest to the reviewer, since the expedition under the leadership of Mr. Torday has collected a number of notes concerning its ethnography which are as yet unpublished, and on which he has had the pleasure of working; these notes, though they contain many details of the greatest importance, chiefly dealing with religion and sociology, which do not appear in the monograph, confirm in many respects the new material published therein, and it is this new material which naturally possesses the greatest interest. The contributor who has in the present volume added by far the most to existing knowledge is M. R. Schmitz, who has spent four years among the most easterly branch of this tribe. It is interesting to note that certain important differences exist between the sub-tribes studied by him and the Namale amongst whom Mr. Torday's work chiefly lay, and who are situated a degree and a half further west. For instance, belief in transmigration, which appears to exist in the east, is not found in the west; certain rights of asylum allowed in the west are absent in the east; inheritance is observed on a different system; the methods of expressing numerals by gesture differ *in toto* in the two localities; also certain words, notably the names of sun and stars.

A more important divergence relates to the ethnographical map accompanying the volume. Here the village Mokunji is placed definitely within the Basonge sphere: the information at the disposal of the reviewer shows that the Mokunji district for some distance to the south of that village is now occupied by the Sungu tribe of Batetela, to whom the Basonge lost part of their northern territory in the first half of the nineteenth century. It might be useful to indicate this in future editions, or

in one of the supplementary pages which the editor promises to issue from time to time as fresh information is obtained.

This series is so good that it is difficult to make any suggestions for improvement; but one or two points might be mentioned which occur to the reviewer. The most important is the following. It is true that the editor in his introduction mentions in broad terms the localities in which the contributors of new matter have worked, but that is hardly enough: it is of the highest importance, especially in view of the differences which appear to occur between east and west in this particular case, that the name of the sub-tribe should be mentioned with each piece of information given; this might easily be inserted in brackets.

The second point concerns the perforation of the pages. It seems very doubtful whether this is necessary or even advisable; it renders the pages liable to become detached unintentionally, and might cause a great deal of trouble in scientific libraries and aggravation to individuals who wished to retain the admirable arrangement observed in the monograph. Those who wish to arrange the pages on their own system (and they will be a small minority) could attain the required end quite easily by means of a penknife and a ruler. On the whole the disadvantages of the present system appear to outweigh by far the advantages.

With regard to two grounds on which, according to the editor in the preface, the series has been criticised already, it is almost certain that the great majority will support M. van Overbergh. It was said that the reprinting of published matter in the language in which it first appeared (in the case of languages other than French) was inconvenient, but the author justly observes that the importance of preserving the actual words is paramount, and the dangers involved in a translation are serious. Further, it was maintained that the publication of contradictory evidence would lead to mystification of the student; but surely the apposition of varying statements is of the greatest importance. Enough has been said to show the very high value of the series of monographs, and the greatest of credit is due to M. van Overbergh for the energy and public spirit which led him to organise and carry out in so masterly a fashion a work which entails months of the most patient and laborious toil. To the man who is capable of performing a task such as this, and in this fashion, the completion of the work is sufficient reward; but to this will be added in the present case the heartfelt gratitude of all students of African ethnography, which should, and doubtless will, be supplemented by similar gratitude on the part of the government which administers the colony in which these tribes are found. In Belgium, which possesses one colony, means for the scientific study of the subject tribes are provided by the Ministry of Public Instruction. What of the other European countries which rule over, not one, but many colonies?

T. A. J.

Australia, Central.

Strehlow.

Die Aranda und Loritja-Stämme in Zentral-Australien. By C. Strehlow. Veröffentlichungen aus dem Staatlichen Völker Museum, Frankfurt am Main. Frankfurt: Baer, 1908. Second notice. Cf. MAN, 1908, 14.

23

In reviewing Mr. Strehlow's interesting volumes on the Arunta, or Aranda, I had not room to describe their system of totemic beliefs. We saw that when the waters retired from the earth at the bidding of one of the self-existing beings whom *Altjira* did not allow to poach on his celestial hunting grounds, many more such beings came forth, *Altjirangamitjina*. These wandered about, like the Alcheringa folk of Messrs. Spencer and Gillen, each of them being, in Mr. Tylor's phrase, a kind of "species-god," and each in close *rapport* with the animals of their species, and capable of assuming its form. Mr. Strehlow says that these A.J. take a part in forwarding the action of the

magical ceremonies, *Unbatjalkatiuma* (the *Intichiuma* of Spencer and Gillen), wrought by men for the plants and animals of their totem groups or totem societies.

The Alcheringa totemic spirits of the Arunta of Messrs. Spencer and Gillen do not appear to do much in this way. They keep on being reincarnated as Arunta children. It is not so, exactly, in Mr. Strehlow's region. His A.J. have gone back again—that is, their *spirits* have—into their primal earth-holes, whence they emerge at pleasure, while their *bodies* have changed into rocks, trees, and so on, such as mark the *Oknanikilla* of Messrs. Spencer and Gillen.

With Mr. Strehlow's blacks it is not the spirits of the A.J. that reside in or near the trees, rocks, pools, and in parasitic foliage (as of the mistletoe among the Euablayi). The dwellers in such places are *ratapa*, germinal spirits and bodies of children waiting to enter into married women and be born. Thus the A.J. are not reincarnated constantly, as with Messrs. Spencer and Gillen's blacks, it is the *ratapa* that are incarnated. Not only the whole bodies of the A.J. are "sacred" (the tree or rock, &c.) but even a portion of such bodies, thus a bird's feathers is *tzarunga* (*churinga*, "sacred") and is a separate totem.

Many A.J.'s have changed into actual stone *churinga*, and are kept in the depositories of these objects. The *ratapa* have bodies and souls, are red of body, like new-born Arunta children, which resemble dusky European babes; only the medicine men can see the *ratapa*. These *ratapa*—emanations from the metamorphosed bodies of the A.J.—are each in *rapport* with some object totem of nature. The body of an A.J. of the kangaru totem changed into a gum tree, and in that dwells a kangaru *ratapa*.

Mr. Strehlow says that the Arunta are not acquainted with the part of the male in procreation, but, in a note, declares that the seniors do know, *wie mir versichert wurde*, but they say nothing about it before the younger men and women. "It is certain that both the Aranda and Loritja know the connection of begetting with birth. In the case of the lower animals even the children are enlightened on this point."

This is precisely what Dr. Roth reports of certain Queensland tribes (*Bulletin V*). Believing that the lower animals have no souls, these tribes account for their birth and begetting in the normal way; but as men *have* souls, these tribes declare that human children do not come by procreation, but "come otherwise." I pointed out this in *Anthropological Essays*, the *Festschrift* for Mr. Tylor, and said that it corroborated my opinion; namely, that it was not a survival of primal ignorance that made these peoples deny human procreation; the denial is a result of their philosophy of spirits. When we find that even the Arunta children know all about the procreation of the lower animals, while men, having souls, "come otherwise," I think that my opinion deserves more favourable consideration than it has hitherto received, while the argument for the "primitiveness" of the Arunta that is based on their ignorance of procreation is "driven to an outside price." As I said from the first, they have simply developed their amazing psychology till it has obscured their physiology; while their psychology is remote indeed from the "primitive."

When a woman approaches the place where the metamorphosed body of an A.J. is, a tree, rock, or pool, called *Knanakala* (obviously the *Oknanikilla* of Messrs. Spencer and Gillen), a *ratapa* that recognises in her a "class-mother" enters her body, causing pangs, and when the child is born it is of the totem of the A.J. whose metamorphosed body is the tree, rock, or the like, the *Knanakala*. The body, that is the tree or rock, may be that of an emu A.J.: an emu *ratapa* enters the woman, the child is of the emu totem (*Iliä*), and is named *Iliakurka* (little emu), or *Iliäpa* (emu feather).

As Messrs. Spencer and Gillen tell us, the *ratapa* (or, in their region, the Alcheringa spirit) sometimes enters a plump matron who is *not* its "class-mother," is

of "the wrong class," and thus introduces a totem into the matrimonial class, where it has no business to be (*Central Tribes*, p. 125). This spiritual caprice is the only cause of the unique fact that, among the Arunta, the same totem may be in *both* main exogamous divisions, so that, in the Arunta nation alone, totems are not exogamous.

In Mr. Strehlow's region the whole business is either a variant of what Messrs. Spencer and Gillen describe, or one or other version—that of these authors, or that of Mr. Strehlow—is more accurate than the other. I shall later show that the former alternative is the true explanation of the diverse reports.

As the Arunta are nomadic, the children of any family, as a rule, are of various totems. This makes it hard to understand how it comes that, in any given locality, the great majority of the people are of the same totem (Spencer and Gillen, *Central Tribes*, p. 9).

This *must* occur, in normal totemism, when the totem passes in the male line. But how it can occur, where totems come by sheer accident, and there may be four or five different totems in the same set of mother, husband, and children, is the central Arunta mystery, yet I am not aware that anyone has remarked on a circumstance that has puzzled me from the first. Sometimes an A.J. spirit comes up from his earth-hole, impregnates a woman with a little wooden bull-roarer, *namatana*, and returns to his own place. Is she a married woman?

When a woman feels what, to her (though not to a white specialist), are the first signs of her pregnancy at the very moment when she sees a kangaru that "softly and suddenly vanished away," it is not the kangaru A.J. spirit himself that enters her body. The kangaru was no kangaru, but an A.J. spirit in kangaru shape. When she feels the same symptoms after eating, say, the *lalitja* fruit, a *lalitja ratapa* has entered her, *but not through her mouth*.

As far as I understand, these are theories to account for a pregnancy discovered *not* at any given *knanakala*, but elsewhere, and so the question for the Arunta is, "whence came the *ratapa* where no *ratapa* is known to be?" The *ratapa* must come from the casual kangaru, an A.J. wandering about, or from the fruit. Unless every noticeable tree, rock, or pool, in the field of view, is a *knakala*, many women must first feel proof of approaching maternity where there is no *knakala*. The fact must be explained; and any transient beast or bird, or food recently eaten, serves as a ground of explanation. The *ratapa* apparently cannot come from a man or woman; men and women have only one soul apiece, they do not emit *ratapa*; but any other object seen or eaten may be an A.J. on the loose, and may emit a *ratapa*.

Men may, and do, have their mother's totems, as well as their own (which come by accident). This maternal totem protects them, warns them of danger in dreams, and is very helpful. Possibly this is a survival of the system by which, among the northern tribes with male descent, a man has his mother's totem in great regard, as well as his father's (Spencer and Gillen, *Northern Tribes*, p. 166). This, with the accompanying northern descent of property in the female line, proves, of course, that the Waramunga and the rest have passed from female to male reckoning of descent. When the Arunta evolved their present system of acquiring the totem, which they must have done relatively recently, for the method has left the great majority of each totem in one or the other sex of matrimonial classes, the old northern regard for the maternal totem survived the change. At all events this seems a plausible theory.

While the children of a woman may all be of different totems, all are blessed by the protection of their mother's totems, which is named *Altjira*, like the emu-footed being in the heavens.

The magic rites, in Mr. Strehlow's region, are named, as we saw, *Unbatjalkatiuma*, not *Intichiuma*, as in the region of Messrs. Spencer and Gillen. The three last

syllables, italicised, are the same in both districts. The difference in the name draws our attention to an important fact. The language of the natives of the two districts is not absolutely identical. *Ratapa* is a word not known to Messrs. Spencer and Gillen. Again, for "stone churinga" their natives say *churinga nanja*, while Mr. Strehlow's say *talkara*. There are several other notable examples, including *Altjira*, whether the sky-dweller or the maternal totem, the *Altjirangamitjina*, and others. The nearest approach to *Altjira*, in Messrs. Spencer and Gillen's vocabularies, is *Alkira*, "sky," and *Alcheringa* (*Altjiringa*?).

Thus, as the natives of the two regions differ in vocabulary, there is no reason why they should not differ in myths and beliefs. If so, both Messrs. Spencer and Gillen are right in their reports, though these reports vary. For example, Messrs. Spencer and Gillen do not find in their Arunta, after the most careful research, any sky-dweller like the red-haired, emu-footed *Altjira* of Mr. Strehlow's people.

Mr. Hartland, remarking on this diversity, says that, while the English explorers find no relatively supreme being, Mr. Strehlow and his German colleagues "have" given us a widely divergent report. They tell us that the Arunta definitely believe "in the existence of a Supreme Being, *ein Himmels-gott*, and that they have, in addition, raised their own forefathers to the rank of gods. The contradiction between "the two statements is such that it is not to be accounted for by merely supposing" (what is true) "that while Messrs. Spencer and Gillen visited one branch of the Arunta, Mr. Strehlow and his colleagues, settled among another branch a few miles off, have drawn their information exclusively from the latter. This information represents the supernatural beings believed in by the Arunta and the Loritja as apotheosised to a degree beyond anything recognised by anthropologists elsewhere in Australia."

Mr. Hartland remarks that "few missionaries can divest themselves as completely as Callaway or Codrington of prepossessions in their inquiries into savage beliefs" It is fair to say that as yet we have only fragmentary statements from Mr. Strehlow, and no hint as to where these statements may be found is given (*Oxford Congress*, Vol. I, pp. 23, 24).

Mr. Hartland had probably no access to Mr. Strehlow's second volume, of September 1908. But does he call volume I of 1907 "fragmentary"? In that volume he must have read that *Altjira* is the least "apotheosised" of all the sky-dwelling superior beings of Australia. He created nothing, he is not an ethical judge, he does nothing but eat, hunt, and keep a harem; he did not even, like the Kaitish Arunta of Messrs. Spencer and Gillen, "make the Alcheringa," "make himself; make men by sending his own disobedient sons to be men, send down everything which the black fellow has," and insist, with penalties, on the initiation rites, and the use of the bull-roarer.

On the other side, Mr. Strehlow's *Altjira* (published in 1907) does nothing, never did anything, and is totally disregarded by the Arunta though they call him "good" (*mara*). How can Mr. Hartland say that *Altjira* is "apotheosised to a degree beyond anything recognised by anthropologists elsewhere in Australia?" He is the least "apotheosised" of all known sky-dwellers, he has no place in religion, and in that fact lies his supreme importance, as I hope to prove on another occasion.

Mr. Hartland says, very fairly, that Mr. Strehlow and his colleagues (the work of the colleagues I scarcely know) "may have conquered these impediments," such as their "prepossessions." If Mr. Strehlow's prepossessions inclined him to credit the Arunta with a highly "apotheosised" being, he has certainly triumphed over his bias in a style worthy of imitation. Meanwhile Mr. Strehlow's variants from the beliefs of Messrs. Spencer and Gillen's people, and the variants in vocabulary, cannot be attributed to the "prepossessions" of missionaries (who are not the only prepossessed

students in the world). He has struck on a divergent branch of the Arunta, and we can receive with equal confidence his reports and those of Messrs. Spencer and Gillen, which is a highly satisfactory conclusion.

A. LANG.

England: Archæology.

Gray.

Report on the Excavations at Wick Barrow, Stogursey, Somersetshire. By H. St. George Gray. Taunton, 1908. Pp. iv + 78, with Appendices. 22 × 14 cm. **24**

This addition to the list of Mr. Gray's reports on excavations in various parts of the country will appeal especially to those who interest themselves in the Bronze Age of Britain. The share taken by the Viking Club in this undertaking is partly due to local traditions, and partly to the fact that the position of the barrow suggested a ship-burial of the Viking period. The primary interments proved to be about 2,000 years older, and were each accompanied by a beaker or drinking-cup of normal appearance; but, to judge from the associated finds, of late neolithic date rather than of the early Bronze Age. Such vessels have, however, frequently been found together with simple bronze relics, and were no doubt in fashion during the transition from stone to bronze in this country, though frankly neolithic abroad. A special feature was the ring-wall of lias slabs, about 3½ feet high, enclosing the barrow, and covered by the material of the mound; and there were clear indications that the barrow had been opened in Roman times, probably by treasure-hunters. The report is well illustrated; and the Somersetshire Archæological and Natural History Society is to be congratulated on its enterprise as well as its choice of an excavator.

R. A. S.

England: Archæology.

Allcroft.

Earthwork of England: Prehistoric, Roman, Saxon, Danish, Norman, and Mediæval. By A. Hadrian Allcroft, M.A. London: Macmillan, 1908. Pp. xix + 712. 23 × 15 cm. Price 18s. **25**

The appearance of this standard text-book marks a very important advance in the study of the earthworks of this country. Hitherto the student has had to search through scores of volumes of Transactions, &c., and to use considerable discretion in piecing together some serviceable *prolegomena*; now he will only have to assimilate Mr. Allcroft's book—an easy task and a pleasant one, so excellent are the arrangement and the literary workmanship—to put himself in possession of all that is known on the subject at the present day. And the extent of this knowledge, even at this early stage, is not inconsiderable. Roman, Norman, and mediæval works have been already separated from the mass. Saxon and Danish remains are for the most part vague and comparatively feeble; and those at present identified are surprisingly few. Behind them all are the unnumbered "camps" of the prehistoric ages, still shrouded in the glamour of mystery, but ripe for the spade which is to change this for the more legitimate fascination of knowledge.

Mr. Allcroft's book is the most eloquent appeal that could be made for the prosecution of the work begun by Pitt-Rivers; what has already been done shows how much is still to be learnt from systematic excavation. "It may be doubted," says the author, "whether any area of the same size can offer a more varied series of problems 'ethnological and archæological.'" "The tools and the method have been determined; 'well-nigh the entire field lies open to all who care to peg out a claim.'"

The arrangement of the book follows in its main lines the classification adopted by the Congress of Archæological Societies. Beginning with promontory forts we pass to "contour camps" and "plateau camps"—convenient terms which sum up the more elaborate definitions of the classification. Between the first and the second class, but included in the latter, is an interesting variety, which, for want of a better term, may be called the hill-promontory type (where a spur or the end of a ridge

is cut off from the main hill and surrounded on the steeper sides by a slighter work than that which crosses the neck); these works the author calls "transitional." Transitional in form is probably all that is implied, since it will be impossible to maintain the view that the hill-top (contour) forts are as a class later than this "transitional" variety. Three of the transitional type have now been excavated—Mount Caburn (Sussex) and Winklbury (Wilts) by General Pitt-Rivers, and Oliver's Camp (Wilts) by Mr. and Mrs. Cunningham (MAN, 1908, 4)—and a comparison of the results goes far to establish this as a type of camp in vogue during the prehistoric Iron Age, down to the Roman invasion. Something might be said, on the other hand, for the hill-promontory camp as a transitional form between the contour camp and the promontory fort properly so called—taking them, that is, in the reverse order. It would be unwise, however, to strain any theory of the sort, as the development of native fortification was, of course, arrested at the coming of the Romans; and the construction of many, if not most, of the promontory forts may be due to wholly different conditions.

The book will do good service in clearing the ground of many preconceptions and obsolete theories. It will help, for instance, to establish the view that the great hill-top strongholds were not "refuge camps," but places of permanent habitation—during the period of their construction, at all events—like the earlier Maori pāhs, and similarly waterless. As to the question of water-supply, which has troubled so many investigators, Mr. Alleroft has some very pertinent remarks. He devotes a whole chapter to dew-ponds, which would certainly have been unnecessary but for the extravagant and unsupported claims that have been made for the high antiquity of existing specimens. To show how wide is the field covered, including almost every known description of earthwork, defensive or otherwise, it may be mentioned that in his discussion of the primitive homestead the author notices in passing dene-holes, dismissing the various theories that have been put forward about them and favouring the only reasonable conclusion—that they are nothing but excavations for chalk and for the most part indubitably modern. It may be hoped that by the time a second edition appears dene-holes and dew-ponds will be no longer worth powder and shot.

Mr. Alleroft has the gift of writing—there are pages in his book which bring the atmosphere and colour of the downs vividly before one, and seem calculated to turn many a lover of nature into an open-air archaeologist. The most attractive chapters are those with which the book concludes, where the author, by way of object-lesson, takes his reader along the South Downs from end to end and then to Dolebury on the Mendips.

For a work of this scope it is probable that the inaccuracies of detail are remarkably few and unimportant, nor are there many points on which one is inclined to challenge Mr. Alleroft's judgment. He suggests (p. 136) that the work at Hawridge, Bucks, may have been an outpost of the pre-Roman camp at Cholesbury. Perhaps it is more likely to be a Norman work of somewhat unusual type; there is a similar example at Renhold, Beds; see also *Vict. Co. Hist. Northants*, II, 409. Another circular funnel-shaped pit similar to those mentioned on p. 284 is to be seen within the lines of Caer Caradoc, Clun. Pits of this kind are probably not very rare in camps, though whether they were all made with the same purpose is another question. Chûn Castle, Cornwall (p. 237), is better preserved than the Ordnance plan would imply. Cotton's plan (*Archæologia*, XXII, Pl. XXIX) still gives a fair idea of the remains, though the outer wall has lost much of its height since 1826. Trencrom (p. 239), an irregular rocky summit defended more by nature than by art, cannot be classed with the regular, dry-walled Chûn; but it is likely enough that both date from the same period. As regards the remarks (p. 387) on Tempsford and Willington camps, it should be noted that Tempsford was the Danish base in 921, and, therefore, would be presumably

the larger work of the two; Willington is not mentioned in the "Chronicle," but Mr. Goddard's reasons (*Saga Book of the Viking Club*, Vol. III, Pt. III) for regarding it as an expeditionary camp of the same campaign are very convincing. "Cæsar's Camp," Wimbledon, though mutilated, like many others, by the golfer, is not yet "destroyed by the modern builder." It may be questioned (p. 403) whether a stockade usually surmounted the outer bank beyond the fosse of a Norman motte; at all events the Bayeux tapestry shows none in this position. As to the Danework (p. 510), reference should be made to the monograph by Sophus Müller and Carl Neergaard, published by the Royal Society of Northern Antiquaries, Copenhagen (1903). One or two suggested etymologies must be left to the tender mercies of philologists; but surely "botchers" (p. 247), the Buckinghamshire name for gypsies, is nothing but the equivalent of the Northern "tinkers."

The text is amply illustrated by plans, and these, being the result of the author's own observation, add greatly to the value of the book. A. G. CHATER.

ANTHROPOLOGICAL NOTES.

THE fifth Congrès Préhistorique de France will be held at Beauvais (Oise) from July 26-31. Excursions will be made to places of interest in the neighbourhood, including the Dolmens and Menhirs at Trie-Château, Boury and Sérifontaine, to Cæsar's Camp at Hermes, and to Compiègne and Mont-Sainte-Geneviève. A special prehistoric exhibition will also be organised. 26

THE National Trust has an opportunity of purchasing White Barrow near Tilshead, Wilts, with some $2\frac{1}{4}$ acres adjacent, for £60, towards which sum the owner is willing to contribute £20. Subscriptions for the balance are invited.

White Barrow is one of the chief Long Barrows of Wiltshire. In the middle of the nineteenth century there were said to be sixty Long Barrows in the county, but many of these have suffered severely, and some have been entirely destroyed by misuse. The very fine Long Barrow at Winterbourne Stoke was much damaged a few years ago, in order that the materials of which it was composed might be used to fill up holes in a neighbouring training ground for racehorses. It is to make such misuse impossible that it is desired that White Barrow should be vested in the National Trust. The Barrow is 255 feet long, 156 feet wide, and 8 feet high.

It is proposed that the vendor, Mrs. Cunnington of Devizes, should reserve to herself and her husband for life the right to excavate the Barrow. Having regard to the long experience in such work which Mr. and Mrs. Cunnington have had, the National Trust has raised no objection to this proposal. It is, however, understood that, in the event of such excavation, anything of interest which may be found in the Barrow shall be offered to the county museum.

The National Trust, which now owns many properties of historic, architectural, or geological interest or of great natural beauty, had not yet preserved any property of purely anthropological importance. It is hoped, therefore, that those who are interested in the study of anthropology will support the Trust in its effort to secure this Barrow.

Cheques, &c., should be sent to Nigel Bond, Esq., the secretary of the National Trust, at 25, Victoria Street, Westminster, S.W.; they should be made payable to the order of "The National Trust," and crossed "National Provincial Bank of England."

ERRATUM.

In MAN, 1909, 3, in the table on p. 5 the horizontal line under the word "Totems" should extend to the left as far as the vertical line between the words "Hamlets" and "Birds." As the table stands at present it is not clear that the birds mentioned are as much totems as the fish, snakes, and plants. C. G. S.



FIG. 1.—FRAMEWORK OF HUT, NORTHERN TERRITORY.



FIG. 2.—COMPLETED HUT, NORTHERN TERRITORY.



FIG. 3.—HUT FRAMEWORK.



FIG. 4.—HUT OF CABBAGE-PALM LEAVES.



FIG. 5.—BARK SHELTER.

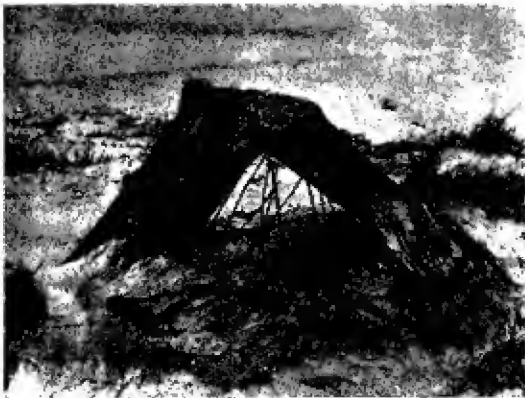


FIG. 6.—BARK SHELTER.

ORIGINAL ARTICLES.

Australia.

With Plate D.

Roth.

Australian Huts and Shelters. By Walter E. Roth, Local Correspondent of the Royal Anthropological Institute. 27

The huts illustrated in Figs. 1-3, Pl. D, were originally designed for withstanding rain but are now devoted to indiscriminate uses. They are almost always constructed on a piece of high ground, any little hillock or mound, so as to insure the more rapid dispersal of the water. The framework is made of two naturally bent saplings fixed opposite to one another below, but locked in a fork on top; logs rest against this arch on both sides, a somewhat larger intermediate space between two of these ultimately constituting the entrance. In the intervals in the framework are placed and intertwined some light bushes, the foliage downwards. These are followed by tussets of grass, and a coating of mud, and, last of all, another layer of bushes is added. The ground-space enclosed by the hut-wall is roughly circular in the smaller kinds, but somewhat elliptical in the larger. The level of the ground inside is not purposely lowered, although constant use and treading often give it the appearance of being so, but in huts designed especially for warmth and use in the winter months the floor space may be excavated to a depth of 18 inches. While the wooden troughs, bags, boomerangs, &c., of the occupants may be kept, when not in use, on the ground, inside or outside, it remains to be noted that all spears are always stuck vertically, with their butt-ends downwards, in the hut walls.

Where the local "cabbage-palm" is plentiful, nothing can give more grateful shade than a hut, thatched with its leaves. Fig. 4 represents such a hut, from the hinterland of Princess Charlotte Bay. It was tenanted by the two wives of the leading man of the tribe. This cabbage-palm is of great economic value to the natives, as a very fine and strong fibre can be obtained from it. The picture also shows two domestic implements which are rapidly falling into disuse,—a mallet and water-carrier. This type of mallet in shape resembles a cricket bat. It consists of an elongated flattened body, and a shorter circular handle, with the demarcation between them distinct. One of the principal uses to which it may be put is to break open the hard-shelled nuts of the screw palm. The bark water-carrier, at the right of the kneeling figure, is made from the gnarled excrescence on the butt of a certain species of gum-tree. Such a bulging knot, at suitable seasons of the year, is hacked around at the base; a pointed stick is used to loosen its edges and its bark shell is thus bodily removed. The roughnesses within are scooped away by charring with fire and then scraping with shell or stone, while any cracks, splits, or holes are mended with a cement substance.

To obtain shelter from the rain the most primitive artificial structure is a long sheet of bark bent mid-way and fixed at both ends into the sand (Fig. 5). An advance is the addition of some upright canes along one of the open sides, up against which foliage or more bark may be placed, the shelter thus developing from a temporary to a more permanent structure (Fig. 6). A very simple kind of wind-break is made of a sheet of bark fixed lengthways in the ground and propped up with two or more sticks.

W. E. ROTH.

England: Archæology.

Cunnington.

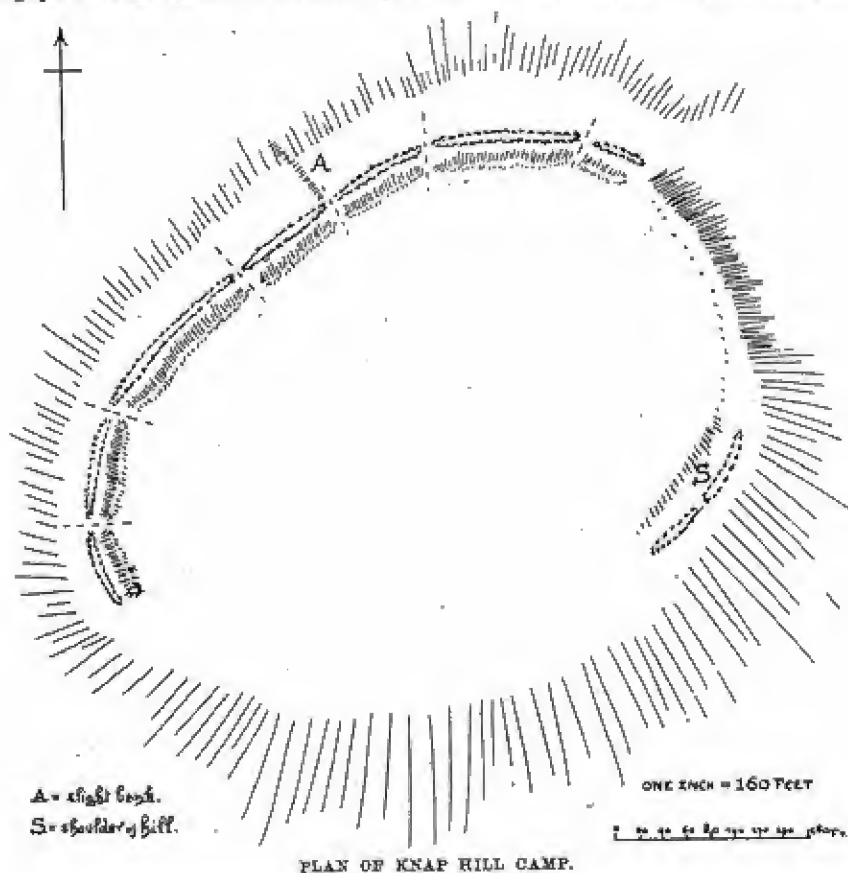
On a Remarkable Feature in the Entrenchments of Knap Hill Camp, Wiltshire. By (Mrs.) M. E. Cunnington. 28

Recent excavations (1908*) on the site of the small entrenchment known as Knap Hill Camp in Wiltshire revealed a feature which, if intentional, appears to be a method of defence hitherto unobserved in prehistoric fortifications in Britain.

* The excavations were carried out by Mr. and Mrs. B. H. Cunnington, of Devizes, with the kind permission of landlord and tenant.

Knap Hill is a bold conical-shaped hill, one of the series of capes or promontories standing out on the edge of the chalk plateau that borders, to the north, the Vale of Pewsey. On the south side, overlooking the valley, the hill is very steep and descends in one continuous slope from the summit to the level of the valley below, and on this side there is no evidence of defence, except that afforded by the natural steepness of the hill. But round the other side, where the hill slopes more gradually back to the level of the Downs that spread out behind it, is an entrenchment consisting of a single rampart and ditch, and this forms what is known as Knap Hill Camp.

The ditch has become silted up level, and there are six openings or gaps through the rampart. It was thought at first that, as often happens on ancient banks, some of these gaps were due to cattle tracks, or possibly had been made for agricultural purposes.



There was, however, a certain regularity about them, and it was difficult to see why on such an isolated spot so many tracks should have been made.

The difficulty of accounting satisfactorily for these breaks in the rampart and for the ridges corresponding to them that were noticeable on the surface of the silted-in ditch, suggested excavation at these points, and thus led to the discovery of the remarkable features to which it is desired to draw attention.

These excavations clearly showed that none of these gaps in the rampart are the result of wear or of any accidental circumstance, but that they are actually part of the original construction of the camp. The proof that the gaps are not the result of accident is that outside of, and corresponding to, each gap the ditch was never dug; that is to say, a solid gangway or causeway of unexcavated ground has been left in

each case. Thus the entrenchment, consisting of the rampart and ditch, instead of being continuous, except for what might be deemed reasonable provision for ingress and egress, is broken up into short and irregular sections.

The ditch of the main entrenchment is divided into seven sections. The unexcavated ground forming the causeway between each section is of a uniform width of 18 feet, although the length of the various sections of the ditch vary considerably. The first section, from the west, is 46 feet in length; the second, 92 feet; the third, 121 feet; the fourth, 98 feet; the fifth, 98 feet; the sixth, 122 feet; the seventh, 42 feet.

The main entrenchment ends on the eastern side of the hill at the seventh section of the ditch; this eastern side has been a good deal cut about by later settlers on the spot, and the rampart may originally have been carried further round the hill, but there never could have been a continuation of the ditch at this point.

But some little distance further round the hill, where the hill juts out and forms a shoulder, the ditch begins again, and there is a noticeable rampart. From end to end the shoulder is only some 130 feet in length, yet even here the ditch is not continuous, but is divided into two sections with a causeway of unexcavated ground between them of the usual width of 18 feet. The two sections of the ditch measure respectively 65 feet and 45 feet in length.

Given the need for an entrenchment at all, it seems at first sight inexplicable why these frequent openings should have been left, when apparently they so weaken the whole construction.

It has been suggested, by way of explanation, that the work of fortification was never furnished, that the ditch was being dug and the rampart piled up by gangs of men working in sections, and that for some reason the work was abandoned before the various sections were completed, with the result now to be seen.

There is, however, considerable evidence in favour of these causeways being an intentional feature of the original design of the camp.

It is too improbable that on the isolated shoulder, as well as on the other side of the hill, the causeways should have been left accidentally as the result of an unfinished undertaking, and the position of the shoulder on the very steep side of the hill quite forbids the idea of an entrance there in any ordinary sense.

In every case the causeways are cut at a slight skew to the corresponding gap in the rampart, so that standing on or just outside the causeway, only an oblique view can be obtained into the camp. A line drawn through the gaps and out across the causeways indicates on the plan in which direction in each case the skew lies. The uniform width of the causeways alone almost affords sufficient proof of design.

The fact, also, that similar causeways have been noticed on several other sites, though not yet proved by excavation, strongly points to the conclusion that they were left for some definite purpose. It has been suggested that, as General Pitt-Rivers thought of the wide flanking ramparts at Winkelbury Camp (*Excavations*, II., 234), the causeways were intended in cases of emergency to admit a large number of cattle as rapidly as possible to the interior safety of the camp. But it would certainly be easier, and therefore quicker to drive a number of cattle through one or two wide openings than over half-a-dozen such narrow bridges as these.

It is then impracticable to regard these breaks in the entrenchment as due to an unfinished undertaking, or as entrances in any ordinary sense, and the only other feasible theory seems to be that they had some distinct purpose in the scheme of defence; that they were, indeed, a strengthening and not a weakening factor in this seemingly not very strongly defended place.

The causeways may have been left as platforms from which to enfilade the ditch, the defenders being stationed upon them for this purpose. The distance from one

causeway to another is not greater than would be within reach of hand thrown missiles. Any determined attempt to scale the stockade with which the rampart was presumably strengthened could probably be more effectually prevented from the gangways than if the defenders were themselves shut up behind the stockade, or forced to come out from some more distant entrance at risk of having their retreat cut off. These causeways would be, in fact, sally ports admirably adapted for defence of the ditch. Even if the top of the rampart were not stockaded the same method of defence could have been adopted. A stockade or paling carried across each causeway on a line with the outside edge of the ditch would have served to shut out the enemy, and to protect the men standing on the causeways. The gaps in the rampart need not have been barricaded, but could have been left open to allow the defenders to pass readily to and fro as they were needed at different points.

There is no sign of a beaten track leading to either of these causeways, but there is a much worn roadway leading to the eastern side of the hill, and it is thought probable that the main entrance to the camp was on this side to which the old road leads, but that the features of the actual entrance have been obliterated by the later people who are known to have lived on the spot.

Flint flakes and rude pottery have been found on the floor of the ditch, and it is believed that the camp is of early date, that it belongs to the bronze, or even to the late neolithic period.

The possible use which the gangways may have served is put forward with all diffidence, and any suggestion on the subject would be welcomed.*

M. E. CUNNINGTON.

Australia: Totemism.

Lang.

Mr. Gason and Dieri Totemism. *By A. Lang.*

29

In Mr. Frazer's *Totemism* (1887, p. 74) we read, "In some Australian tribes sons take their totem from their father and daughters from their mother." The totemism of the Dieri is then described briefly, and, "if a dog man marries a rat woman, the sons of this marriage are dogs and the daughters are rats." A footnote says, "Letter of Mr. S. Gason to the present writer."

The later researches of Mr. Howitt and the Rev. Mr. Siebert are understood—I doubt not correctly—to have demonstrated that Mr. Gason was wrong on this point. He was not a trained *savant*, he was merely an officer of police who was intimately acquainted with the Dieri before their present melancholy decline, and it is not denied, I think, that he knew their language. Thus it may be guessed that the unscientific policeman did not invent his account wholly without provocation or excuse. Can the cause of his error be found in this most important and rather neglected statement of Mr. Howitt? "A step further" (in the great step from reckoning descent in the female to reckoning in the male line) "is when a man gives his totem name to his son, who then has those of both mother and father. This has been done even in the Dieri tribe. Such a practice leads directly to a change in the line of descent" (Howitt, *Native Tribes of South-East Australia*, p. 284).

Mr. Howitt cites no authorities, and here mentions no tribes of female descent save "even the Dieri," in which this practice existed. He had, I think, hit on a most important fact—he was the last man to record it without good evidence—a fact showing how the change of line of descent would naturally arise. He does not tell us how the young man of two totem names behaved towards his two totems. Could he, as of his father's totem name, marry into his mother's phratry?

* It is hoped that a further exploration of the site will be found possible, and that a fuller account will appear later.

Probably not, but a continuance on this line would bring us to the state of affairs among the Warramunga and other northern tribes, who revere the maternal totem, and inherit property in the maternal line; but, in the affairs of marriage, are of the paternal totem and exogamous division.

It is most unfortunate that Mr. Howitt did not develop his knowledge of this matter. But if some Dieri sons proclaimed to Mr. Gason that they were of the paternal totem name—"given" by the father—while daughters were not, Mr. Gason's mistake is intelligible.

Mr. Frazer quotes another case in which sons take the paternal, while girls take the maternal totem name, in the Ikala tribe, "at the head of the Great Australian Bight" (*Journ. Anthr. Inst.*, XII, pp. 45, 509); in this case there are "certain exceptions."

A. LANG.

Africa: East.

Crawford.

The Kikuyu Medicine-Man. By J. W. W. Crawford, M.D.

30

One of the most interesting personages to be met with among the Akikuyu is that of the medicine-man. In this tribe, as in many of the Bantu tribes of Africa, the medicine-man combines in himself the offices of prophet, priest and physician. He is therefore much in evidence in the religious and social life of this primitive people. He is frequently consulted, and his advice invariably is followed by his clients, so that in his life and work he exerts a powerful influence over the people, as he is supposed to be guided in his official acts by the Almighty. He is known to the Akikuyu by two names: 1st, *Muraguri*, which means fortune-teller or prophet; 2ndly, *Mundu mugo*, which includes the offices of priest and physician.

The "*Mundu mugo*" is supposed to be called to this vocation by God, who appears to him in a vision, and asks him to become a medicine-man. The next morning he tells the people of his village of his dream, and at sundown he goes away into the woods, seemingly insane, and continues all night holding communion with "*Ngai*" (God). The following day he returns to his village and announces that he has been called by "*Ngai*" to be a medicine-man.

He provides himself with a quantity of native beer and a he-goat, at the same time sending for another "*Mundu mugo*." This personage arrives on the scene equipped with his bag of medicines, and his "*mwano*," a calabash filled with small stones, bits of iron, beans, &c. With this "*mwano*" he professes to foretell future events. This is presented to the candidate for the office, and he is instructed to go to the river and gather more small stones to augment the outfit. The goat is then sacrificed, and a small piece of the skin is fastened round the neck of the calabash as a charm. The flesh of the goat is cooked and eaten by all in the village, and the beer drunk by the elders alone.

The candidate is then instructed in the use of the "*mwano*," and the art of fortune-telling and prophecy. He is also shown how to compound medicines from native herbs, &c. He may himself add to this knowledge from time to time as his experience increases. He is now looked upon as a member of the profession and is often consulted.

In his office of "*Muraguri*" he spreads the skin of a goat upon the ground, shakes up the stones in the gourd, and casts them out like dice, professing in this way to forecast future events.

He may be consulted by a young warrior who is about to buy a wife, and his client will be guided by his advice. If goats or sheep die without an apparent cause he is consulted as to the reason. If a man is sick for a long time and does not respond to treatment the "*Muraguri*" casts the "*mwano*" to ascertain the cause. If

a friend is away for a long time the "Muraguri" is consulted as to his whereabouts, state of health, and the possible date of his return, &c.

The client may wish to take a journey, so he goes to the "Muraguri" to find out the most suitable season. In fact, in every detail of life in which they need advice and guidance this important personage is consulted. The fee for these services is a small one, usually from two to three pice (equal to two or three farthings) or their equivalent in kind.

A medicine-man may be consulted in ordinary cases of illness, and medicine be given at the time, but in every instance he collects his fee before he leaves the village. He is also called in to "guthiurura" (go round) a village. By this is meant the driving away of all evil spirits which are supposed to hover near, and the bringing of good luck to the locality.

If an owner of a village is afraid of thieves, sickness, witchcraft, or poison, the "Mundu mugo" is consulted. Or should he desire an increase of cattle, flocks, good crops, and children the medicine-man is summoned and the wishes of the elder explained to him. The "Mundu mugo" standing erect in the middle of the village elevates his bag of medicines, and looking towards the summit of the snow-capped mountain, Kenia, where God is supposed to dwell, and also to Mount Kinaangop, which is likewise supposed to be a dwelling-place of "Ngai" (God), he prays that he may be given wisdom that his medicines may be used in overcoming the evils which exist in the village, and that good luck and prosperity may result. He then seats himself on his stool, and placing several pieces of dried banana bark before him on the ground, he puts medicine from his gourds upon each piece, the patient meanwhile sitting opposite to him. He then produces the horn of a goat, and, mixing the different medicines together upon the banana bark, pours the whole concoction into the goat's horn. The open end of the horn is sealed up with bees' wax, and the outside of the wax studded with beads. The small end of the horn is then pierced with a boring instrument, and through this hole a small native iron chain is introduced. This is given to his client to be worn around his neck as a charm, a means of warding off impending evils, and as an aid in bringing prosperity.

The owner of the village now gives the medicine-man a ram or a he-goat, which he proceeds to march around the village and the gardens in the vicinity. When the circle is completed he returns to the village, and the animal is sacrificed, cooked, and eaten by all present.

The "Mundu mugo" then collects his fee, which for this service may be two, three, or even four sheep, according to the ability of his client to pay and the professional standing of the medicine-man.

Among the Akikuyu any sort of ceremonial uncleanness, such as touching a dead body, eating the flesh of any wild bird, animal or fish, proscribed by tribal custom, handling poison, digging a grave, arson, or a sickness for which there seems no apparent cause, and a whole host of other things, is called "thahu." The man or woman thus defiled sends at once for the medicine-man and asks to be cleansed. The "Mundu mugo" thus solicited visits the patient at his village, and a sheep or goat is sacrificed at once. Taking his bag of medicines in his hands he lifts it above his head, and turning towards the mountains he invokes the assistance of "Ngai." The contents of the stomach and intestines of the animal that has been sacrificed are reserved and placed on banana leaves in a small hollow in the ground, prepared by the medicine-man. To this offal is added some medicine from the gourds. The "Mundu mugo" then collects a number of twigs from the thicket near the village; these he ties in a bundle, like a small broom, and lays it beside the hole. The front foot of the sheep is removed at the knee joint and placed beside the twigs. These are

then dipped into the offal in the hollow of the ground, the patient opening his mouth that the twigs may be applied to his tongue. The order is pronounced, "Vomit!" whereupon the person spits out. This process is repeated several times, while a long list of actions supposed to cause ceremonial uncleanness is repeated. When this is exhausted the sheep's foot is dipped into the offal and applied to the patient's tongue, and he again spits out several times. The twigs are then divided into two bundles and dipped again, the "Mundu mugo" and his patient standing up. Commencing at the top of his head, the medicine-man, with a bundle of twigs in his hand, rubs his patient's body all over, ending with the feet. When this is finished the medicine-man tells him that his "thahu" is expelled.

Leaving his patient he now takes the twigs dipped in offal and enters each hut in the village in turn, and, proceeding to brush the walls with them, he pretends to sweep out the "thahu."

Finally he collects the sheep's offal together and carries it away from the village into the thicket, at the same time saying, "I drive 'Thahu' out of this village!" On returning he again sits before his patient and requests him to stretch forth his hands, palms upward, and close together in the attitude of receiving. He pours out some white substance like chalk from one of his gourds and draws a line with it on the outstretched palms and on the patient's forehead, nose, throat, and abdomen; afterwards drawing similar lines on his own body. Some of the contents of the medicine gourds are mixed in the palms, and the man is told to swallow it. The flesh of the sacrifice is then cooked and eaten by all except the patient himself; if he were to eat any of the meat the uncleanness is supposed to return.

The "Mundu mugo" now collects his fee, which may be either in money or in kind, and takes his departure.

Witchcraft is said to be practised by agents of the evil spirits in human form, and misfortune, disease, and sometimes even death itself, are attributed to their evil influence. When witchcraft is suspected the medicine-man is called, and after the usual ceremony of prayer he pulls from his bag the horn of a wild animal (probably that of an antelope) which has been previously filled with medicines and sealed with bees' wax. With this horn in his hand he searches in and around the village, digging in the ground with it at the roots of trees, in the gardens, at the sides of the huts, &c. Finally he brings forward something which he pronounces to be the cause of the trouble. This may be some *débris* wrapped in leaves, or a piece of a human skull, the hairs of a man's head, or a piece of stick or stone surrounded with leaves. A sheep is then sacrificed and eaten, and the "Mundu mugo" makes some mysterious passes with his horn, and declares the spell of the witchcraft to be broken and the village purified. The fee for this service is a high one, generally two or three sheep.

In many of these sacrifices bits of the skin of the animal sacrificed are cut off and worn upon the wrists as bracelet charms.

As with many other African tribes the *ordeal* ceremony is practised to determine the guilt or innocence of a suspected party. For instance, a crime such as murder, theft, or arson has been committed, and the perpetrator is unknown. It may be that several suspected parties are arrested and brought before a council of elders with the local chief. The "Mundu mugo" is then asked to prepare a "muma" or ordeal and several tests may be applied. In minor cases the suspected party is asked to incise his leg with a knife until blood appears, and then to lap up his own blood from the wound with his tongue. If he is guilty he will die in a short time, if innocent nothing happens.

Another test is to tell the suspected person to plunge his bare arm into a large pot of boiling water into which the "Mundu mugo" has poured medicine, and take

out an axe-head. If guilty, he will be badly scalded; if innocent, he will not be injured.

Yet another test is to heat a sword red-hot in the fire, putting medicine upon it, and telling the suspected person to lick it with his tongue. If innocent, the tongue will escape injury.

A goat is sometimes sacrificed, and its blood retained in a banana leaf, to which the medicine-man applies medicine. The suspected one is told to lap up the blood, and if guilty he will shortly die, but if innocent he will escape.

J. W. W. CRAWFORD.

New Zealand.

Edge-Partington.

Maori Forgeries. By J. Edge-Partington.

31

The frequent occurrence of forged ethnographical specimens, more especially from New Zealand, turning up at sales in London, makes it necessary for collectors and others to examine with special care any specimens brought to their notice, more particularly as many of these have changed hands at very high prices. I have lately had a letter from Mr. Turnbull, of Wellington, New Zealand, warning me that a great number of extremely well-made forged greenstone Maori "antiquities" are in circulation in New Zealand, a very clever workman there making most of them; the man has excellent patterns to work from, and his forgeries are very hard to detect.

I was told in London by a dealer that some years ago a forger in Germany carried on a very lucrative business for over five years in carving both Tikis and Meris. One is naturally led to ask what has become of all these forgeries?

J. EDGE-PARTINGTON.

REVIEWS.

Magic.

Thompson.

Semitic Magic: Its Origins and Development. By R. Campbell Thompson, M.A. London: Luzac & Co., 1908. Pp. lxviii + 286. 24 x 16 cm. Price 10s. 6d. net.

32

Early Semitic magic makes, of course, its primary claim upon our attention because of the effects it has produced upon three great contemporary religions, but it makes a second—and very important—claim in respect of the influences it has undoubtedly exercised upon other magical systems. Eastern magicians and astrologers were busily plying their trades in Rome during the early years of the present era, and later, during the period when most of Europe was sunk in mediæval darkness, Semitic peoples—congregated in the Peninsula, scattered in groups elsewhere on the Continent—kept alive the ancient learning, and with it much of the ancient magic. Of this magic some of the marks of which may still be traced, especially where demonology enters, filtered through to the peoples amongst whom these Semites dwelt. Then, again, there was the strong direct influence brought to bear upon the Christian nations in the Biblical descriptions of magical acts and processes, while probably there was always extended—as there is yet extended—a ready welcome to anything mystical arriving from the East. Eastward even in early times, the great trade routes must have carried the Semitic magic; and we may yet find even in the Far East customs which hint at, at least, a contact with it. Mr. Thompson's book, therefore, is a welcome addition to the scientific studies of magic, not alone because of its direct application to Biblical studies and to studies of Semitic magic in its proper homes, but because also of the light it may, in the hands of competent students, help to shed upon the origins of, or influences involved in, various European, Indian, and Far Eastern magical practices.

The book concerns itself principally with the ancient Mesopotamian magic, as recorded upon the clay tablets of some 3,000 years or less ago, with which the author

compares, for illustration and explanation, comparatively recent, or modern, Semitic practices recorded by others or by himself. At the period, remote from us as it is, at which these tablets were written, magic had, of course, in common with other arts, advanced very far beyond the savage stage, so that it is only by analogy that we may trust to find here the ultimate origins of the practices to which the tablets refer. As the author says in his preface: "The parallels afforded by Aryan and Hamitic nations show how close are the grooves in which savage ideas run, and that the principles of magic are, broadly speaking, coincident in each separate nation, and yet as far as we know of independent invention." It is, therefore, rather the particular developments of Semitic magic, and the influences of those developments upon later magic (including the magic described in the Bible), in which we should interest ourselves.

The most important features of Mr. Thompson's work are his study of tabu as revealed in the tablets, and the deductions to which his study of the evil spirits mentioned in them have led him. His deductions, briefly stated, are as follows:— (1) All evil spirits could inflict bodily hurt on man. (2) Offspring, either semi-divine or semi-demoniac, could be born of intermarriage between spirits and human beings. (3) From this belief arose the tabu on certain sexual functions. The contaminated person was segregated (according to the author's theory) because of the fear of the jealousy of the marriageable demons which were supposed to be near or present during the period of the functions. (4) A person having unconsciously broken some tabu, would fall sick from the attack of a resentful spirit. The priest then exorcised the demon by transferring its influence from the patient to some other body. (5) This is the basis of the atonement principle. Having brought the demoniac influence into a wax figure or a slaughtered kid, for example, the priest destroyed it. Later, the most probable theory is, the original idea of the slaughtered kid became merged in that of the ordinary sacrifice representing a common meal with the god, and the carcase of the kid then became a "sin offering" instead of a receptacle for the exorcised demoniac influence. (6) The principle of substitution for the firstborn apparently originated in cannibal feasts amongst primitive and savage Semites; with milder natural conditions and a rise in culture it became natural to substitute a beast for a tribesman at the tribal cannibal feast.

These deductions are worked out in five chapters, to which is prefixed a long introduction giving a general description of the tablets and the series in which they occur; extracts from a number of the tablets, general remarks as to the components of the ceremonies and concerning the purposes to which the magic was applied, and some information as to the priests and sorcerers by whom the ceremonies were performed. These latter were of three varieties: seers, a kind of wizard who repeated incantations and performed exorcisms, and "chanters" of the ceremonials allotted to them. A minor point of interest is that the medical texts often contain short incantations for aiding the effect of prescriptions of drugs or herbs, "for the Babylonian medicine-man was but a witch-doctor with a herbalist's knowledge of simples combined with an ingenuous belief in *abracadabra*." Another is the manner in which the book illustrates the modern survivals, it may be in professional magic, it may be in folk-magic, of many of the minor conceptions (as distinguished from the greater concerned with the spirits and their natures) of the magicians of twenty-five or thirty centuries ago.

The first chapter deals with the various spirits, numerous in variety, by which diseases or other misfortunes may be caused. "The ideas which are still current show us that the more ancient forms of hobgoblins, vampires, spooks, and devils exist under various titles with the several attributes that were assigned to them by the Babylonians, who cultivated one of the most elaborate and intricate systems of ancient magic that we know." With these premises the author, by means of more

or less modern folklore, endeavours to determine the natures of the many spirits mentioned in the incantations upon the tablets. Disembodied spirits, the unquiet ghosts of persons who have died in various circumstances; purely supernatural beings, such as the many devils who haunt unclean places or waste areas, and the devils who afflict children in particular or pregnant women, or kindly, guarding spirits; and semi-human, semi-supernatural spirits, which form the basis of certain of the author's theories concerned with tabu, are in their modern forms compared and identified by him with the spirits of the incantations. As is so often the case elsewhere, certain diseases were personified; thus, "Fever" and Headache, amongst others, were quoted in the tablets as demons coming from the underworld.

Next tabu is discussed. "Hundreds of tablets . . . have been made available to scholars . . . they represent a series of beliefs probably far more ancient than the epoch at which the tablets which we now possess were actually written . . . it is in the arcana of exorcisms and magical invocations that we may hope to find material to explain some of the more difficult questions of the tabus of uncleanness . . . besides the tabus on the dead, the uncleanness that rests with all sexual functions was most marked." The cuneiform tablets vouch for the tabu of a corpse among the Assyrians:—"To look upon a dead body demanded a purifying ceremony, and if a wizard laid the waxen effigy of a man near a corpse subsequent evil was sure to attack the victim." Crimes, such as murder, adultery, and theft, or the stirring up of strife were considered tabu.

The third chapter deals with sympathetic magic, and shows principally how there obtained amongst the ancient Semites the usual beliefs as to the substitution of a part for the whole, or of an image for a victim or a patient, with subsequent injurious or curative treatment. In the fourth chapter the author presents his theory as to the origin of the atonement sacrifice amongst the Semites, tracing it to "a primitive system of providing a substitute victim [as distinct from the primitive redemption of the first-born] for the devil whose connection with the man has brought down a tabu . . . This . . . is emphasised by the study of the Assyrian exorcisms; that the disease demon must be gently or forcibly persuaded to leave the human body to enter the dead animal or wax figure which is placed near and so be brought into subjection."

In the last chapter the author attempts to trace the origin of the custom of the redemption of the firstborn, rejecting the theories that the custom originated in a sacrifice of a nature to avoid future dangers, or in the idea that the firstborn was of supernatural parentage, and deciding that, as stated above, it probably originated in their sharing, by a primitive and savage people wandering in a harsh and barren land, of their cannibalistic feasts with their deities. The book concludes with an appendix devoted mostly to a study of the tabus mentioned in the tablets, a list of Biblical quotations, and an excellent index.

W. L. H.

Anthropology.

British Museum.

Guide to the Specimens illustrating the Races of Mankind (Anthropology) exhibited in the Department of Zoology, British Museum (Natural History). 33
London, 1908. Pp. 31. 21 x 14 cm. Price 4d.

The writer of this guide has adhered to the conservative classification of mankind as Caucasian or White Races, Mongolian or Yellow Races, and Negro or Black Races. For the purposes of a short and popular book this course is probably the most appropriate, provided always that the necessary reservations are clearly indicated. It is a shock, however, to find in the Contents the native Australians and the Hamites, amongst others, appearing without qualification as members of the "Caucasian or White

Races." The point may seem a small one, but it is characteristic of the book. It is a guide in a hurry.

The strict anthropologist may be content to find practically no reference to man's relationship to the apes, though it is arguable that the evolutionist owes a duty to his ancestors. It is a meagre crumb of comfort to learn that there is a case in the gallery in which are "exhibited many of the structural differences distinguishing the "man-like apes from man himself." No bishop could be more discreet.

The criteria of race are in the main left for the reader to glean from the text, and it is probable that such an expression as the "elliptical hair" (of the Tasmanians) will not be fully appreciated.

The inset section headings, which alone indicate the sub-divisions of the subject-matter, are in the same type throughout, so that the "Aryans," the "Semitic group," the "Toalas," the "Polynesians," the "Maoris," and others, appear as of equal rank, and their subordination to the author's "Caucasian or White Races" is not suggested by any variation of type. Again, although all other section-headings indicate racial divisions, in one case the Aryan obsession has prevailed, only to be discredited, though by no means completely exorcised, in the text. It may be noted that the Berbers are called upon to figure in this non-racial racial section. In this connection also, a logical deduction from the author's statements is, that not only the Dravidians and the Veddas, but probably also the Ainus, the Macoutzi, the Australian natives, and the Polynesians, are "Aryans." The reader is left in uncertainty as to the real position of the Bisharin, since they appear both as Semites and Hamites within the space of a few lines.

It may be mentioned that the Guide appears to be, in the main, a reprint of the labels in the museum cases, with the intercalation of some recent theories on racial origins and relationships.

The plates are of considerable interest, and worth preserving.

H. S. H.

Totemism.

Van Gennep.

Totémisme et Méthode comparative. Par A. van Gennep. From the *Revue de l'Histoire des Religions*. Paris, Leroux, 1908. Pp. 44. 26 x 17 cm.

34

M. A. van Gennep's brochure of forty-four pages consists of a polemic against M. Toutain, M. Renel, M. Amélineau, and others, who have written on Egyptian religion and on Roman ensigns in connection with totemism; and a statement of the differences between the "comparative" and the "historical" methods of enquiry into totems and tabus. Unfortunately I have not read the book of M. Renel (*Cultes militaires de Rome*, tome I, 1903).

The essay of M. Toutain on the book of M. Renel is in *L'Histoire des Religions* (1908, pp. 333-354). M. Toutain is rather adverse to the totemic theory as a key to peculiarities in Egyptian and classical religion: nor can it be denied that the key becomes a crowbar, or "jemmy," in the hands of some enthusiasts. But, as M. van Gennep argues, there are more sober students, and there is more in totemism than M. Toutain is inclined to allow.

M. van Gennep complains that M. Renel has not defined totemism; has not (as I understand) allowed for the advance in knowledge since the appearance of Mr. Frazer's pioneer work, *Totemism* (1887); and that M. Renel assumes that totemism has been proved for ancient Egypt, and modern Europe, and has identified totemism with some isolated practices, such as "the cult of standards." As a matter of fact neither Greek, Celtic, Italian, Egyptian, Semitic, nor Arab totemism is historically demonstrated. Here I, for one, agree with M. van Gennep, but I do think that the theory of a very remote past of totemism, far behind "Early Minoan," best explains certain features in the religions, or rather myths, of the ancient peoples mentioned, while I

conceive that many theorists have overrun the scent, as when Orpheus is recognised for a "sex totem" of the Thracians!

The complaint is that M. Renel, M. G. Reinach, M. Amélineau (for Egypt), and others, "have found out Mr. Frazer's book of 1887," and have "used the facts as they use historic documents." By "historic documents" I mean inscriptions, charters, contemporary correspondence, and so forth. In prehistoric times, and among savages, these are not to be found; we must make the most of what we have, and, unlike the *sarants* censured, must keep abreast of discoveries in custom and tradition; and it is absolutely essential, as M. van Gennep insists, that we should employ a definite terminology; not tossing about "clan," "tribe," and "family" at random; nor using "totem" for dozens of things perfectly different and distinct; for "clan masks," gods, the familiar of each individual, and so forth. The word "clan" ought not to be used at all in matters totemic, and "totem" ought not to be used for *enseigne protectrice*. The Napoleonic eagles were not totems! M. Loret and M. Amélineau are criticised for making confusions; for speaking of what the Enahlayi call the *yunbeai* of the individual, as if it were the same thing as the *dhé* of the totem-kin. I can agree almost wholly with M. van Gennep's "Four Principles of Totemism," but scarcely with the second, "the belief is expressed in the religious life by positive rites," for I am not aware of positive religious totemic rites among most of the South-East Australian and North American tribes whose totemism seems to me most normal. With M. van Gennep I recognise that such terms as *sibokisme* and *sulaisme* would be useful, and all other sciences have what a Scottish critic of psychology calls their "jargon." To say "jargon" is to be very popular, yet even games have their technical terms. M. van Gennep proposes an international congress to settle the terms. Meanwhile each writer might explicitly define the meaning which he attaches to the terms he employs; say, in the study of Australian marriage, the word "class."

M. van Gennep applauds Mr. Hartland's valuable paper (*Folk-Lore*, Vol. XI, pp. 22-37), and thinks that it would have been useful to M. Amélineau, in his *Prolégomènes à l'Étude de la Religion égyptienne* (1908).

That totemism is "primitive" no one can really maintain, as M. van Gennep insists, but among some tribes it exists without ancestor worship, and appears to be earlier. The word "primitive" might as well be expunged from the scientific vocabulary. M. van Gennep also stigmatises the vague way in which the word "tabou" is used. I must differ from M. van Gennep when he says, "Totemism seems to have for its aim, at least in some *groupements*, the restriction of the depopulation of animals and vegetables." He appears to refer to the Arunta "close-time," by which, as I understand, the members of each totem-group decide when the "season" for each plant or animal opens. This appears to me to be a late utilisation of totemic ideas, not the original *but du totémisme*. But M. van Gennep may not mean to assert anything about the original aim of totemism, he has no theory of the origin of totemism, and he can have no theory of its aim.

A. LANG.

Religion.

The Inward Light. By H. Fielding Hall. London: Macmillan, 1908.

Pp. viii + 252. 23 x 14 cm. Price 10s.

Hall.

35

I have had this book by me for a long while, because I have felt some delicacy in saying of it what I think ought to be said. It seems to me to be a particularly dangerous book and likely to remain popular. I have, therefore, read it carefully from end to end to see what is actually in it.

It is apparently intended to be the climax of a series of books by the author on the same subject, the inner religion of the modern Burmese Buddhist, seemingly, in the writer's opinion, the highest form of religion in existence. It is obviously intended to

be a philosophical work. "It is to explain and illustrate really what Buddhism is that "I have written this book." But I do not think it should be too clearly stated by a critic with experience of things Oriental that it does nothing of the kind. It is, in plain fact, a presentation, in modern western language and in modern western garb, of the philosophy of the Indian Vedanta, which is not Buddhist, though no doubt a good deal of that philosophy has been absorbed by the inmates of Buddhist monasteries in Burma. The doctrines of the Vedanta are presented in this book as if they were something newly discovered in the philosophy of the East, and admirable beyond those of any philosophy that the West has thought out. Perhaps that would not matter much, were it not for the beautiful and seductive language in which the book is written.

It is herein that the danger lies. It is a highly poetical book, couched in language throughout eminently calculated to captivate the mind and render it uncritical—and yet it is misleading from cover to cover. The author is a born poet and a past master in poetical expression—a man with whom the forms and sounds of words are an obsession. The poetry in him—the mere love of picturesque description—always carries him away and makes him incapable of correctly stating what he observes or learns. He is never more wrong than in his allusions to the mental attitude of the West, whence he is derived. A most charming guide, but withal a most dangerous one.

I wish to give Mr. Hall all the credit I can. To anyone desiring to pass some pleasant hours in company with imagery of wonderful beauty, and to give himself up for a while to fairyland to be enthralled with scene after scene of surpassing loveliness, I strongly recommend this book; and I would specially draw such an one's attention to pages 91-2 and 165-8 as well worth reading and thinking over. But if the reader of these alluring and often exquisite pages rises up from the perusal with the idea that he has thereby learnt anything that is not as old as the hills or anything of the real Buddhism or the real Burman, I can assure him that he will be entirely mistaken, and have done himself a mental injury.

The book is, indeed, an appeal to the imagination and not to the reason, and for practical purposes quite valueless.

R. C. TEMPLE.

Fiji.

Thomson.

The Fijians: A Study of the Decay of Custom. By Basil Thomson. 36
London: Heinemann, 1908. Pp. xx + 396. 23 x 15 cm. Price 10s.

No one can read this study of the Fijians without reflecting how different would have been the history—the often shameful history—of conquered native races, had their administrators possessed the sympathy, insight, and, above all, the anthropological knowledge of Mr. Basil Thomson. For the best-intentioned efforts, if not guided by this knowledge, may have an unexpected effect and produce conditions far worse than those they strive to ameliorate. In Fiji, for example, the missionaries' endeavours to inculcate "family life" on the English plan produced a surprising result. The ill-advised work of the early missions in abolishing the *mbure-ni-sa* (unmarried man's house) has ended in moral laxities practically unknown in heathen times, in a far higher birth-rate and an enormous increase in infant mortality, which is having a disastrous influence on the future of the race. Even church festivals and school treats of the most innocent intention have results other than were anticipated. And in government the mistakes made are no less serious; an attempt to understand native laws and customs would save years of conflict and perhaps hundreds of lives.

Mr. Thomson's indictment of our method of dealing with native races is severe: "We do not, as a rule, come to native races with the authority of conquerors; we saunter into their country and annex it; we break down their customs, but do not force them to adopt ours; we teach them the precepts of Christianity, and in the same breath assure them that instead of physical punishment by disease which they

"used to fear, their disobedience will be visited by eternal punishment after death—a contingency too remote to have any terrors for them; and then we leave them, like a ship with a broken tiller, free to go whithersoever the wind of fancy drives them, and it is not surprising that they prefer the easy vices of civilisation to its more difficult virtues. In civilising a native race the *suaviter in modo* is a more dangerous process than the *fortiter in re*."

Nevertheless, for those who lament the gradual extermination that seems inevitable when the "progressives" invade the lands of the "stagnant" peoples, it is reassuring to read the author's belief "that in the centuries to come there will be representatives even of the smallest races now living on the earth, and that the proportions between civilised and what are now uncivilised peoples will not have greatly altered." But since the political and social ideas which underlie Western civilisation will then have permeated the whole of mankind, such a book as this under review, being a study in detail of a "stagnant" people is of the greater value, and the Fijians, owing to their isolation, are peculiarly well fitted for such a study.

Thus we turn confidently to the index to direct us to points of social interest. But in vain. *Childhood, Infancy, Kinship, Mother-right, Father-right* (or Agnatic and Uterine descent, which are the terms used in the text) are all omitted, although, owing to a chance comparison in the introduction, *Essomeric, de Bethencourt, Pocahontas, the Eskimo, and the Copts* are given a line apiece. Only one reference to *Tabu* is given, although it is mentioned more than twenty times in the first 200 pages; and even with such a conspicuous entry as the *Strangling of Widows* only one reference is given, on p. 132, and the ten earlier references are ignored. On the other hand, *Yaws*, which is described on pp. 270-6, is accorded five lines of indexing.

The table of contents forms a fairer view of the value of the book. The first chapters deal with the Transition, the Ages of Myth and of History, the Constitution of Society, Warfare, Cannibalism, Religion, Polygamy, Family Life, and the Marriage System. These titles speak for themselves, and when to an intimate knowledge of the subject is added the direct simplicity and charm of style, together with touches of humour with which readers of Mr. Thomson's earlier works are familiar, the result is a book containing much information produced in a most delightful form.

The account of the kinship system is somewhat disappointing, as the author seems to have confined his attention to one form, and writes of that alone as if no others existed, although Dr. W. H. R. Rivers (see *Nature*, August 27th, 1908) found in the interior of Viti Levu "an entirely new system of kinship of the most complicated and interesting kind, and quite different from the system previously recorded as the Fijian system." Mr. Basil Thomson had the advantages of lengthy residence, daily intercourse with the natives, and all the facilities granted to official status: Dr. Rivers was in Fiji for less than a month. Do the latest methods of anthropological research need further vindication?

Later chapters are devoted to various customs, prevalent diseases, native character and capabilities, and after separate notices of games, food, yankona (kava), tobacco, and a most interesting chapter on land tenure, the book ends with conclusions, in which the new is compared with the old, and the transition period is shown to combine in many ways the evils of both.

A. H. Q.

Trade.

Trading in Early Days. By H. Ling Roth. Halifax, Yorks, 1908. 37

Pp. 45. 21 x 14 cm. Price 1s.

Mr. H. Ling Roth, Honorary Curator of the Bankfield Museum, Halifax, has issued, as one of his Museum Notes, a lecture on the Early History of Trading. He suggests that the earliest form of inter-tribal commerce is to be found in the custom

of presenting articles in the hope of receiving an equivalent. This view is illustrated by the customs of the Andamanese, and by the Yutchin which prevails among the natives of South-east Australia. Following this comes a second transitional stage, when it was recognised that exchange must be adopted as a substitute for force, this being due to the developing regard for human life. In this connection he describes the intertribal relations of the aborigines of Queensland, who use message sticks; and of the natives of the shores of the Gulf of Papua and British Guiana. Passing from these various forms of inter-tribal trade, he describes the beginnings of exchange with strangers, which leads to the use of an elementary form of currency, such as hanks of wool, bars of salt, and shell money. Another development is the habit of silent trade, prevailing, as Herodotus states, among the Carthaginians in Libya, and in more modern times among the races of the Niger Delta and other parts of Western Africa. Analogous to this are hidden negotiations or dumb barter, first noticed by Cæsar Frederick in Pegu. This leads to a review of early forms of transport and of the more elementary kinds of maps. Markets, he believes, generally begin with tribal meetings for the performance of religious rites. He next discusses the more primitive varieties of notation, and the rise of commercial integrity. This is followed by an account of the earliest media of exchange, and by a description of the most primitive coins. Finally, he discusses the evolution of the system of credit. It will be seen from this summary that Mr. Ling Roth covers an exceedingly wide field within the limits of a single lecture. The only criticism that I would be inclined to make is that the subject, as a whole, is too extensive for summary treatment; and that he would be well advised to extend this review into a more comprehensive treatment of the question. As it stands, however, the lecture is interesting and suggestive, and it is illustrated throughout by photographs and drawings of specimens from the collections under his charge.

W. CROOKE.

Africa : Congo.

Starr.

A Bibliography of Congo Languages. By Frederick Starr. University of Chicago, Department of Anthropology, Bulletin V. Chicago, 1908. Pp. 97. 24 x 17 cm.

38

The laborious task of preparing a bibliography of any sort is one from which the majority of mankind shrinks, and yet bibliographies are perhaps more needed just now by students of anthropology than any other class of literature; at present the young science is, as far as its material is concerned, in a very disjointed condition, and the amount of research in literature of every sort which must be undertaken by the student who wishes to generalise on any particular subject can be realised only by him who has made the attempt. Next to personal experience, or even before it for the inductive writer, the greatest part of knowledge is knowledge of the bookshelf; and every bibliography marks a definite step in progress.

The task so ably performed by Mr. Starr, a compilation of a bibliography of Congo languages, was no easy one, as may be gathered from the following passage taken from his introduction:—"The only significant list heretofore printed is the section 'Linguistique' in Wauter's general *Bibliography of the Congo*. That list is the foundation upon which the present catalogue has been built. The only other sources from which any serious amount of material has been secured are the various bibliographic lists of the British Museum and the catalogue of the British and Foreign Bible Society and the Society for Promoting Christian Knowledge. All these together have, perhaps, yielded less than one-half the titles here presented." The collection of the larger half of entries was a matter of peculiar difficulty, owing to the fact that many works of great value are the produce of local presses established by various missions in the Congo Free State, and are very difficult to procure.

It is easily gathered from the introduction that many of this class of philological publications would have escaped the compiler but for the fact that his travels in the State brought him in contact with them. In some cases the missions seemed anxious to hide their light under a bushel, and, with regard to one active mission press, "Neither letters to the mission nor hours of search in Brussels have enabled us to secure copies of its publications or information regarding them."

It is interesting to note one particular class of work, which is more numerous than may be supposed and which the compiler confesses may not be fully represented, viz., those books of local production written by Africans for Africans, consisting chiefly of manuscripts in Swahili written in Arabic character. Closely akin to these is an interesting *Guide to Swahili*, printed in the Gujarati character, which is the direct outcome of the contact between Hindu and Swahili.

However useful and interesting bibliographies may be, it must be confessed that there is something very unattractive about the appearance of their pages, but the present work is an exception. Professor Starr has hit upon the very happy idea of incorporating in the text small portraits of the authors of three or more items in the list. These portraits, twenty-five in number, are supplemented by a number of plates, mainly reproductions of the title-pages of early works, and an excellent portrait of Robert Needham Cust as frontispiece.

The items are arranged in the alphabetical order of the authors' names, and there are two indices, one of the dialects represented, and a second of the presses. The unexpected size of this bibliography and the number of the illustrations show the care which Professor Starr has expended on its preparation. He has added greatly to the obligation under which his previous work has laid anthropology. T. A. J.

Teneriffe: Craniology.

von Behr.

Metrische Studien an 152 Guanchenschädeln. Von Detloff v. Behr. Stuttgart: Stuecker und Schröder, 1908. Pp. 83. 28 x 17 cm.

39

This paper contains detailed measurements of eighty-three male, forty-four female, and fourteen children's skulls from caves in the island of Teneriffe, which must therefore be dated prior to the conversion of the islanders in 1496.

By means of seriation diagrams the various indices of the Guanche skulls are compared with those of a series of Spanish skulls dating from the early metal period and with the early Egyptian series described by Thomson and MacIver in the *Ancient Races of Thebaid*. The author finds some resemblance between the Guanche and the Spanish series, but not between the Gaunche and the Egyptian. The paper gives no tables of average dimensions or indices and makes no reference to previous workers in the same field, and is important only from the complete list of measurements it contains. To render these more immediately accessible for purposes of comparison with other groups the following averages have been calculated by the reviewer:—

AVERAGE INDICES.	MALE.	FEMALE.
Length-Breadth - - - - -	77·3	78·9
Length-Height - - - - -	70·6	72·2
Breadth-Height - - - - -	91·4	91·3
Upper Facial (Kollmann) - - - - -	52·0	52·8
Orbital - - - - -	82·6	84·2
Nasal - - - - -	46·4	47·4

These agree very closely with the averages of previous observers, but the additional numbers will reduce the probable error materially. F. S.



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



FIG. 7.



ORIGINAL ARTICLES.

Africa, West.

With Plate E.

Joyce.

Steatite Figures from Sierra Leone. *By T. A. Joyce, M.A.*

40

In MAN, 1905, 57, I described a small series of these interesting sculptures, and gave such information concerning them as I had been able to collect through the kindness of various correspondents in West Africa. In that note reference was made to a paper by Professor Rüttimeyer, of Basel, who was the first to publish anything concerning these *nomori*. Shortly after the appearance of my note the British Museum was fortunate enough to acquire from Lieutenant Boddy a long series of some forty specimens, perfect and fragmentary, which he had collected on the spot and of which some exhibit new characteristics. Still later a few other specimens have been added to the National Collection, the most recent series being the gift of Major Anderson, District Commissioner, Makondo Central District, who also was able to furnish some new and interesting information. Fresh details concerning these figures also reached me in 1906 through the courtesy of the Rev. A. E. Greensmith, of Bo, Sierra Leone. Quite recently Professor Rüttimeyer has described and figured in the *Internationales Archiv für Ethnographie*, Bd. XVIII, p. 167, a second collection which he has obtained, and has incorporated in his article further information, much of which he obtained from Mr. Greensmith, and is therefore similar to that which the latter gentleman was kind enough to send me.

It may be worth while, since Professor Rüttimeyer has published his results to date, to place on record the more important specimens which have reached this country. Many of the latter are similar in type to some already figured (notably Figs. 4 and 5 in Rüttimeyer's first article, Fig. 7 in his second, and Fig. 1, *a* and *d*, in my note in MAN), and some appear to have been carved by unskilful hands in quite recent times, and the artist has not always been able to free himself from the conventions of the present-day art of wood-carving. A few of the most interesting are shown on Plate E.

Fig. 1 represents a man in a standing position, with hands on either side of a very finely-developed chest (though it may be that the figure is represented as carrying some rounded object pressed close to the body). A number of lines drawn horizontally from the ear to the mouth represent tatu similar to that of the figure illustrated in MAN, 1905, Pl. G. The top of the head is cut off flat and a wide conical hole is bored vertically in the "crown" to a depth of 2·3 cm. The carving, with the exception of the legs, is very good. Height of figure, 13·4 cm. (Boddy Collection.)

Fig. 2 is interesting, chiefly owing to the fact that, though considerably weathered, it exhibits in the features of the face and method of hair-dress, many of the characteristics of present-day wood-carving. It represents the head and bust of a woman, the arms lacking, the hair is dressed in a crest running from forehead to nape of neck, two plain vertical bands in relief from temple to angle of jaw in front of each ear represent tatu, and a large necklace of spherical beads is shown in relief encircling the neck. The whole surface, except the face, is ornamented with incised lines grouped to form triangles. Height of figure, 14·7 cm. (Boddy Collection.)

Fig. 3 is a fragment, representing the head and shoulders of a man; the arms, one of which is broken, are raised, and the hands laid flat upon the cheeks, as Fig. 6 of Rüttimeyer's second article; the hair is trimmed in a circular fringe of braids with a tonsure on the crown; and a short beard follows the line of the chin. Height of fragment, 8·8 cm. (Duke Collection.)

Fig. 4 is in some ways the most interesting of this series; it represents a bearded male figure with a kind of turban on his head, bearing in his right hand a spear, in his

left a circular shield, and surrounded by six diminutive figures of varying heights. A somewhat similar figure (not illustrated) forms part of the same collection; viz., a man with spear, and circular shield which he rests upon the head of a diminutive figure; the latter, which is very rudely carved, is cut free from the larger figure. Fig. 4 is perhaps the most weathered of the whole collection; the surface is quite black and very smooth. The circular form of the shield is very interesting as it is extremely rare amongst negro tribes. Height of figure, 17.8 cm. (Boddy Collection.)

Fig. 5 represents a woman with pendant breasts standing and holding a staff in her right hand. In her head, the hair on which is shaved in patterns, is a vertical hole 2.8 cm. deep. Vertically down her body, above and below the navel, is a band of *guilloche* pattern in relief, representing tatu somewhat similar to that on the body of the figure illustrated in MAN, 1905, Pl. G. Height, 22.6 cm. (Boddy Collection.)

Fig. 6, which is somewhat battered, represents a head only, with very coarse features and widely everted lips. There is a flat circular projection on the top of the head about the region of the bregma but inclined to the right, the ear lobes and the *ala* of the left nostril are represented as ornamented each with a ring. A string with two cowries encircles the neck. Height, 14.0 cm. (Duke Collection.)

Fig. 7 is quite unlike any other I have yet seen; it represents a man seated on a peculiarly shaped stool (see Fig. 1 below) and carrying a bowl. On his head is a

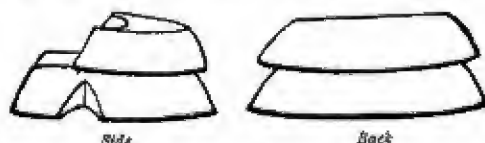



FIG. 1.

conical turban with a lobed border; the face is grotesque, the features sharply cut, the nose prominent and pointed, but with exceedingly broad *alæ*; the lips are parted in a wide and cat-like grin, showing a formidable array of teeth (obscured by the shadow in

the photograph); the ears are placed unnaturally high, immediately under the border of the headdress, the hair is shown in a fringe on the forehead, and a series of knobs on the neck may represent either curls or ornaments. On each temple is a band of tatu

thus:  Round the shoulders is cast a cloak, one end of which hangs down in a bunch behind the left shoulder (just visible in the photograph). Height, 21.5 cm. (Boddy Collection.)

As to the fresh points of information which I have received, I will first quote Mr. Greensmith's letter:—

"I have one or two observations to make which may be helpful to you:

"(1) In addition to being found in Sherbroland, Mendiland, and over the Liberian border, they are also found in those parts of Timniland that lie contiguous to Mendiland. It may be that you will possibly hear of them being found much more to the east than has yet been suspected.

"(2) I have not observed you make any mention in your note, nor have I indeed heard from any civilised person, black or white, of certain metallic rings that the natives say are discovered, i.e., dug up, with these farm devils, and which are never separated or rather kept apart once they are found.

"Although I had heard of them more than two years ago, it was only a month ago that I saw, and actually came into possession of, one of these rings. It was very black with exposure to the weather apparently. On scratching it with a knife, it appeared to me to be either brass or bronze. The ordinary image is called, as you observe in your article, 'nomoli' or 'nomorri,' but when accompanied by one of these rings is then known as 'mahai-yafei,' king spirit or king devil—I suppose so called because they are employed in the courts of the chiefs for the witnesses to be sworn upon. These mahai-yafeisia or maha-yafanga, although but the ordinary

"nomolisia with a ring accompanying them, are regarded with much more dread than the simple nomoli, and are regarded as of much greater value.

"The metal rings are sometimes six, seven, and eight inches in diameter, and the nomoli is placed in the middle, but the one I secured was only about 2 inches, and fitted so close to the nomoli that it served to prop it up in an upright position.

"(3) The word 'nomoli' appears to me to be derived from *nu* = person, and *muli* = soapstone. Soapstone, of course, is still to be found in the country.

"Before the end of the year, possibly in a few weeks hence, I may find time to go off on a little expedition, to investigate the truth of the native reports about the 'little hills' I previously mentioned to you."

Major G. d'A. Anderson, District Commissioner, Makondo, is the source of the following interesting information regarding the localities where these figures are found; he has not come across any rumour as to the, possibly mythical, *tumuli* concerning which other enquirers have received reports. His account runs as follows: "I cross-questioned many chiefs—Konnoh, Mendi, and Timni—and their answers were almost identical. In substance it was:—With the exception of a few figures handed down for generations as guardian 'good fairies' of a town and a few found in old farms, all the Nomori were found in caves or recesses in worked-out veins of steatite. I warned all the Court messengers and officials that I wished to see one of these 'pits,' as they called them, and by chance I came across one and investigated it, and could see at once the manner of manufacture. I was crossing from the Konnoh country to the Kuniki chiefdom, and, as we were passing a newly-made farm, one of the boys ran back and said the man had found a Nomori pit. I found a gully or ravine in the side of a steep hill, which, on investigation proved to be a long tunnel or chamber with the roof fallen in; as far as I could judge it had been about 9 feet wide tapering to 3 feet, 15 feet long and 8 feet [high] at the entrance, tapering to about 4 feet. The sides were of steatite but badly veined with sand, mica and iron oxide. There were remains of several figures roughly blocked out but abandoned when a vein of sand or mica was encountered. Clearing away *débris* I found one small incomplete figure still adhering to the side; numbers of fragments were scattered about. The natives told me that when they found figures in the pits, these were always attached to the rock and had to be cut out. I came to the conclusion that the steatite was not first quarried and then sculptured, but that the figure was carved in the rock *in situ* and not removed until complete and perfect. If a vein or pocket of quartz or mica was encountered, which would spoil the sculpture owing to finer parts breaking or crumbling away, the figure was abandoned and another started. This is borne out by the fact that most of the figures now obtained are imperfect, the hair, fingers, or portion of ornament being unfinished, and always at the blemished spot mica or sand will be found."

Unfortunately no information is forthcoming at present as to the makers of these figures; it is possible that a comparison of the tatu marks may shed a little light on the subject, but I have not yet had the opportunity of pursuing any enquiry in this direction. I feel convinced that some of them are quite modern, since they correspond so closely with present-day wood-carvings, and it seems likely that the natives may have taken once more to the carving of this easily worked material. Professor Rüttimeyer is inclined to attribute to the *nomori* an age of "many centuries"; this may be correct, but there is absolutely no evidence to show this. When it is remembered that tribal memory in savage Africa is extremely short, and that the whole of the west coast has been the scene of continual migrations from the interior, of tribes wishing to avoid the depredations of slave raiders, or pressing seawards in quest of salt, and when it is realised that these migrations usually resulted in the annihilation of either the immigrants or the people whose territory they tried to seize,

it will be readily understood that a very few years might suffice for a craft to fall into absolute oblivion. On the whole I cannot see that the facts as we yet know them warrant us in attributing any great age to these carvings. Nor can I see that these figures can be considered on the same footing with ordinary stone sculpture; some of them are so soft that they can be scratched with the nail, none that I have seen are so hard that they could not readily be shaped with an instrument of soft iron, and the fact that steatite possesses no grain renders it more easily worked with a blunt knife than wood, provided that the details are not to be very minute. They stand far below the very remarkable basalt sculptures discovered by Captain Partridge some twenty degrees of longitude distant in Southern Nigeria, and, indeed, have nothing whatever in common with them except the mystery which surrounds their origin.

T. A. JOYCE.

Africa : Rhodesia.

Shrubsall.

A Brief Note on Two Crania and some Long Bones from Ancient Ruins in Rhodesia. By F. C. Shrubsall, M.D.

41

The date to which the construction of the ruins in Rhodesia should be assigned has been a matter of controversy since their discovery. Some investigators regard them as having been built by the ancient cultured peoples of Southern Arabia, and would assign them to the early centuries of our era, if not indeed long prior to this. Others maintain that no objects have been demonstrated from any site which can be shown to be more ancient than the fourteenth or fifteenth century, that in the architecture there is no trace of Oriental or European style of any period soever, and that there are imported articles of contemporary date with the buildings

SKULL FROM OLD
MINE.SKULL FROM CHUM
RUINS.

which are mediæval or post-mediæval. Those who maintain the earlier dating conclude that the settlers who built the ruins were acquainted only with natives of the Bushman type; the others appear to maintain that the structures might have been constructed by negroes. Any evidence from human remains is therefore of some importance.

In the Natural History Department of the British Museum there are two skulls and some long bones which were found in these ruins and presented to the Museum by H. W. Moffat. One, catalogued as 97.2, 13.1, is described as having been found buried in an old ruin. With this were found some long bones. The other,

97.2, 13.2, is described as having been found in an old shaft 30 feet under the ground in a mine nearer Buluwayo.

These records would scarcely serve to date the remains, but on tracing their history it appears that these are the specimens referred to by Hall (*Ancient Ruins of Rhodesia*)

SKULL FROM OLD
MINE.SKULL FROM CHUM
RUINS.

and Keane (*Gold of Ophir*) as "ancients," so that they presumably would maintain that they are the remains either of the builders of the present ruins, or at least of their contemporaries.

With regard to the first skull the following particulars are taken from Hall's work.

It was found in the Chum ruins, situated on the summit of a kopje, 200 yards to the west of the junction of the Malema and Tuli rivers in the Gwanda district of Rhodesia. The present ruins were built on a mass of intrusive diorite, but are constructed of granite brought from a distance. Hall classifies them as belonging to the first Zimbabwe period, the inside walls being of as good construction as the outside, the main and divisional entrances being rounded and not squared, the plan of the walls showing an elliptical form and there being no straight walls or angular corners. He states that there is no sign of reoccupation and no trace of Portuguese articles. The original cemented floor with levelled edges remains the present floor. The description of the site in which the remains were found is as follows:—"Under the cement floor " in No. 1 enclosure were found the skeletal remains of a man with gold bangles round " the ankles. Altogether sixteen ounces of plain gold ornaments were found with this " ancient." Under the cemented flooring of enclosures 2, 3, and 4, skeletal remains of " ancients were found also with plain gold ornaments.

The evidence for the site of the second skull is less satisfactory, but it is one of those remains of "ancients" stated to have been sent originally to Professor Thane and later placed in the British Museum.

Crania.—The skull from the Chum ruins has been considerably damaged. Both skulls are of adults, the one from the old mine shaft undoubtedly belonged to a male, the sex of the other is more uncertain, the small size of the mastoids, the fullness of the conceptaculæ cerebelli and the shape of the forehead more resembling the female, though the size suggests that it is a male.

The chief dimensions so far as they could be ascertained were:—

	Skill from Chum Ruins.	Skill from Old Mine Shaft.		Skill from Chum Ruins.	Skill from Old Mine Shaft.
	<i>Dimensions in millimetres.</i>			<i>Dimensions in millimetres.</i>	
Glabello occipital length -	184·5	182	Frontal curve -	130	117
Maximum breadth -	136	131	Parietal curve -	125	129
Basi-bregmatic height -	138 ?	131	Occipital curve -	126	106
Basi-nasal length -	103 ?	107	Total sagittal curve -	381	351
Basi-alveolar length -	101 ?	108	Total horizontal curve -	522	507
Naso-alveolar height -	70 ?	66	Biauricular curve -	295	290
Bizygomatic breadth -	136 ?	132			
Nasal height -	54 ?	50			
Nasal breadth -	36 ??	30	<i>Indices.</i>		
Orbital height, right -	—	33	Length-breadth -	73·7	72·0
" " left -	35	33	Length-height -	74·8 ?	72·0
Orbital breadth, right -	—	40	Breadth-height -	101·5 ?	100·0
" " left -	40·5	39	Alveolar -	98·1 ?	100·9
Bidacryc breadth -	—	26·5	Upper facial -	51·5 ?	50·0
Internal palatal length -	—	54	Orbital -	86·4	R. 82·5 L. 84·6
" " breadth -	—	43	Nasal -	66·1 ?	60
" biorbital breadth -	—	101	Naso-malar -	—	108·9
Naso-malar curve -	—	110			

The accuracy of the dimensions marked with a ? is somewhat uncertain owing to the damage the skull has received. The bizygomatic breadth and nasal breadth have been calculated by projection from the mid line of the skull to the appropriate points on the sound side, the measurement thus recorded being doubled. The results are sufficiently accurate to give a general idea of the size of the skull.

If these dimensions be compared with those obtained from an average of a large series of skulls from the various races of southern Africa it will be seen that these skulls resemble the Bantu negroes and not the Bushmen. The photographs show the negro type of the skull and the lack of resemblance to those of European, Hamitic, or Semitic origin.

AVERAGE DIMENSIONS OF MALE CRANIA OF OTHER AFRICAN RACES.

—	Bushmen.	Hottentots.	Kaffirs.	Zulus.	Angoni and Anganja.	Djagga.	Western Bantu.	Predynastic Egyptians.
Glabello-occipital length	178·8	183·2	190·6	184·1	184·0	186·8	179·1	184·5
Maximum breadth -	134·7	133·5	137·3	137·0	133·4	132·6	135·7	133·0
Basal-bregmatic height -	126·4	130·6	137·4	138·1	135·1	132·7	133·7	133·6
Bizygomatic breadth -	121·3	125·8	134·1	133·1	126·9	129·5	128·6	126·9
Naso-alveolar height -	60·2	65·5	69·1	69·5	69·7	67·3	66·4	70·1
Nasal height -	42·8	46·2	48·7	47·2	48·1	45·7	47·5	50·7
Nasal breadth -	25·9	26·3	27·3	27·3	27·3	27·8	26·8	25·5
Basal-nasal length -	94·9	98·3	105·3	101·8	102·0	—	100·9	101·8
Basal-alveolar length -	94·9	99·6	105·1	101·9	103·7	—	103·9	98·4

The shape of the nasal bones in the second skull and lower margins of aperture pyriformis in both is characteristically negroid.

Long Bones.—The long bones sent from the Chum ruins consist of a left femur, radius and ulna and a right tibia, with parts of other bones, notably a humerus with a perforated olecranon fossa.

Their lengths are :—

Femur, maximum	-	-	470	Radius	-	-	-	284
„ oblique	-	-	469	Ulna	-	-	-	303
Tibia	-	-	418					

The three latter are quite disproportionate to the former, hence it seems probable that they may not all be from the same skeleton.

Calculations based on the length of the femur would give a stature of about 1 m. 70, while from the other bones the estimate would be from 1 m. 80 to 1 m. 90 according to the formula employed. In any case the bones must be those of a man or men of above the ordinary stature, which entirely excludes any question of the remains being those of Bushmen.

Taking all the features into consideration it may be concluded that these remains are those of negroes of a similar type to those now found in Rhodesia. If the statement as to the situation in which the bones were found be accepted then it must be concluded that at the time of the construction of the buildings the negro race had already occupied Rhodesia.

While it does not show that the negroes built the present ruins it is at least important to note that the remains found are not those of more northern peoples.

My thanks are due to the authorities of the British Museum for permission to measure and photograph these specimens.

F. C. SHRUBSALL.

Nicobar.

Fontana.

Possible Traces of Exogamous Divisions in the Nicobar Islands.**42**

The following extract is from Nicolas Fontana's work, *On the Nicobar Isles and the Fruit of the Mellori* (*Asiatic Researches*, Vol. III (1802), Article VII, in *Selections from the Records of the Government of India*, No. LXXVII. Calcutta, 1870, p. 61). Fontana visited the Nicobar Islands in May, 1778 :—

"They unite in matrimony through choice, and if the man is not satisfied with the conduct of the woman, either from her inattention to domestic concerns, or sterility, or even from any dislike on his part, he is at liberty to discharge her, and each unites with a different person, as if no such connection had taken place. Adultery is accounted highly ignominious and disgraceful, *particularly with persons not of the same caste*: should it be proved, the woman would not only be dismissed with infamy, but on some occasions even put to death; although, by the intervention of a small token given publicly and consisting of nothing more than a leaf of tobacco, *the reciprocal lending of their wives of the same caste* is exceedingly common."

No other writer that I am aware of speaks of "castes" among the Nicobarese. Père Faure (1711) specifically denies their existence (*Lettres Edifiantes et Curieuses*, Vol. XI. Toulon, 1810).

This indication of the former existence of classes regulating marriage in the Nicobar Islands seems to deserve comment. Mr. E. H. Man allows me to make the following quotations from his unpublished notes :—

"There is no trace of exogamy or endogamy among the Nicobar Islanders. A few cases of polygamy have been known, but the practice is regarded with disfavour by the general community. In such cases as I have known, the wives (to the best of my recollection) lived in separate huts and were not related to one another. As to polyandry, I was able to discover only a single case. . . . On enquiry I found that the woman's bigamous conduct was due to her disappointment in having no children by her first husband. . . . Though there are many cases of married couples living together for many years and even till death do them part—especially when they have been prosperous and have been blessed with satisfactory children—there is practically no limit to the frequency of divorce. . . . It by no means rests with the husband to determine the separation. It frequently happens that, owing to her dissatisfaction with his habits or treatment of her, the wife severs the connection, and either returns to her relations or marries someone else.

"Marriages between first cousins—and of course, therefore, between relations of yet closer consanguinity—are not permitted. Only one such case (*i.e.*, between first consins) is cited as having occurred: it was at Nancowry Island and was regarded as somewhat scandalous. There are no restrictions in respect to marriage between individuals of the same name or community, provided there be no blood connection between them. As a matter of fact, however, probably no case has ever occurred among them of the same name having been borne by a man and a woman. . . . A man may marry his deceased wife's sister or brother's widow, or even his brother's wife if he has deserted her; but it is not customary to do so. . . . I would add that among the Shom Pen. . . . marriages between first cousins are said to be permitted, and one case was brought to notice in that community where a man had married a widow and her daughter. This tribe, being evidently the representatives of the primeval inhabitants of these islands, is in a distinctly lower social scale than those occupying all the remaining islands of the group.

"I cannot understand Fontana's use of the word '*Caste*.' The Moravian missionaries, who were 19 years in those islands (1768–87), and who probably met Fontana during his visit in 1778, do not support him in this. . . . Had a 'caste' system existed among the Nicobarese only a century before my first acquaintance

with them, forty years ago, some trace would surely have remained ; but I have never discovered anything to give colour to any such belief." B. F.-M.

REVIEWS.

Australia : Linguistics.

Planert.

Australische Forschungen. I. Aranda-Grammatik. II. Dieri-Grammatik.

Von W. Planert. Aus der Zeitschrift für Ethnologie, Heft 4 u. 5, 1907, und Heft 5, 1908.

43

The languages of the Australian aborigines have so rarely been discussed in a scientific manner that the appearance of these two articles should prove very acceptable. They relate to the south central portion of the continent, which is already fairly well known linguistically by the Parnkalla Grammar and Dictionary of Teichelmann and Schurman, and the Narrinyeri Studies of the Rev. G. Taplin.

The Aranda (or Arunta) of these grammars is already familiar to anthropologists as the principal language of the peoples dealt with in the work of Messrs. Spencer and Gillen on the native tribes of Central Australia, in which, however, little was to be learned of the language. The Dieri language of the tribes about Cooper's Creek is slightly better known and has the distinction of being the only native language of Australia in which a complete version of the New Testament has been printed. This was translated by the missionaries, J. G. Reuther and C. Strehlow, in 1897.

Both Dr. Planert's papers deal with the details of grammar, which differ considerably in the two languages, and texts are given. In Aranda there are specimens of folklore, and in Dieri the parables of the Prodigal Son, the Piece of Money, and the Ten Virgins from the New Testament translation.

A dictionary of the languages is promised, and this with the grammars will prove a valuable and reliable contribution to the philological study of this part of Australia.

S. H. RAY.

Australasia.

Guillemard : Keane.

Australasia : Malaysia and the Pelagic Archipelagoes. Vol. II. By F. H. H.

Guillemard, M.D. Second edition, revised by A. H. Keane, LL.D. (*Stanford's Compendium of Geography and Travel. New issue.*) Pp. xvi + 574. 20 x 40 cm. Price 15s.

44

Islands must always have a peculiar interest for Britons, and a work solely devoted to an account of a vast number of them, from the largest to the smallest, may well claim their attention. Such is the book before us. It is a treatise on islands which by their size, number, character, variety, distribution, and inhabitants afford a fascinating study for the students of geography and ethnology. The first edition of the work was very appropriately written by the distinguished author of *The Malay Archipelago* and *Island Life*. It formed the latter part of the one volume then deemed sufficient for the whole of Australasia. Dr. Russell Wallace made the subject so interesting that the original volume ran through five or more editions in a few years.

In 1894 this latter part of the original volume was re-issued separately under the editorship of Dr. Guillemard. It was much enlarged and embellished with fourteen coloured maps, two charts, and forty-seven illustrations.

After fourteen years, during which time important additions have been made to our knowledge of some of the islands and considerable political changes have occurred, a new issue has been considered desirable. It is, in the main, Dr. Guillemard's edition ; the maps and illustrations remain the same, but it has been revised by Dr. A. H. Keane, and the revision has given opportunity for embodying the results of recent exploration, more especially in Borneo, Celebes, and New Guinea. The fuller knowledge of the

river systems of Borneo, the researches of the cousins Sarasin in Celebes, including their account of the Toalas of South Celebes, and the nature of the mountain chains of New Guinea revealed by several explorers—Dutch, German, and English—have all been included.

Since the last edition the Hispano-American War has transferred the Philippines to the United States, and Spain has also ceded the Carolines to Germany. The United States have taken possession of the Sandwich Islands. The devouring spirit of the Great Powers has divided the Solomon Islands between Great Britain and Germany, and Samoa between Germany and America.

Notwithstanding recent additions to our knowledge, no doubt a large and rich field still remains for the explorer and ethnologist. There is still much to be learnt regarding Borneo, Celebes, New Guinea, to say nothing of smaller islands both in the Malay Archipelago and in the Pacific.

Considering that, scattered over the islands described in these pages, there are representatives of the Malay, Indonesian, Negrito, Melanesian, and Mahori races, with an invading Mongol host from China, this part of Australasia presents a veritable galaxy of problems and puzzles for the ethnologist. These questions are naturally only lightly touched upon in the present work, but they are by no means ignored, and as might be expected from the wide and profound knowledge of the reviser, what is given is clear and much to the point. In a short introductory disquisition on the Malay race and language, Dr. Keane's views, published as long ago as 1880 in the *Journal* of the Institute on the origin of the races of Malaysia, are restated. Although Dr. Keane has naturally a leaning to his own conclusions, yet most ethnologists will probably admit that they give the best explanation yet offered of this difficult problem.

The treatment of ethnological topics is, perhaps, best illustrated by the brief but sympathetic account of the Polynesian race, to which Dr. Keane has added a useful note on the Mahori language. It is, however, matter for regret and gives a want of proportion to the work that Polynesia is treated at so short a length. The whole of Polynesia (including Micronesia) is disposed of in 70 pages out of 550, about the same number as are given to the Philippines alone. We should like to have seen included in the Polynesian section what may well be termed the romance of the Pacific—the exploration of that ocean by the early voyagers. What an interest is aroused—an interest assuredly very germane to geography and to ethnology—by recalling the voyages of Magellan, Mendana, Tasman, Torres, Queiros, Bougainville, La Perouse, Wallis, Cook and Wilkes. A map showing the routes of these celebrated captains of the sea might be usefully added. On the other side, a longer account of the early Portuguese, Spanish, and Dutch voyagers who struggled for the riches of the spice islands, would not have made the geographical story any the less interesting.

It goes without saying that Messrs. Stanford's coloured maps are admirable, but the value of the work would be considerably enhanced by the addition of maps in the text similar to the chart on page 7, showing the submarine bank of South-east Asia. Such maps would be particularly valuable in connection with the Polynesian groups.

E. A. PARKYN.

New Guinea : Languages.

Meyer.

Die Papuasprache in Niederländisch-Neuguinea. Von A. B. Meyer. Berlin. 45
Sonder-Abdruck aus dem Globus, Bd. XCIV. Nr. 12. 24 September 1908.

In the third volume of the Reports of the Cambridge Anthropological Expedition to Torres Straits it was shown that the existence of Papuan or non-Melanesian languages in British and German New Guinea might be definitely asserted, but that the existence of similar languages in Netherlands New Guinea was not yet clearly proved. In the

above paper Dr. Meyer discusses this question, and distinguishes certain languages of Netherlands New Guinea as Papuan. Those selected are :—

1. Arfak, in the north-west peninsula.
2. Hattam, also in the north-west.
3. Kapaur, in the south-west.
4. A dialect spoken on the south coast between 138° and 141° E. long.
(This is called Tugeri in the Cambridge Reports.)
5. Sentani, in the north of Netherlands New Guinea.

A table is given of forty-six words (including the numerals 1 to 6 and 10). This shows the languages to be distinct from each other, with a very few loan words from the Malayo-Polynesian. This want of likeness between one language and another is a marked Papuan characteristic. Another feature, that of the failure of the Papuan numerals to express more than "two" is indicated only by one language, that of the south coast, where *zakod* = 1, and *ina* = 2, and 3 = *ina-zako*, and 4 = *ina-ina*. The non-appearance of this formation in the other languages is not remarkable, as, considering the imperfections in the lists, the words given as numerals may possibly be the names of parts of the body used as tallies. Dr. Meyer quotes from Van der Sande the numerals of Angadi and Nagramadu, near Lake Jamur, south of Geelvink Bay. These show the Papuan $2 + 1 = 3$, $2 + 2 = 4$.

In some remarks on the position of the Mafur language Dr. Meyer strongly urges its claim to be considered a mixed language. It was called Papuan by Fried. Muller, but Dr. H. Kern, in 1886, in discussing its relationship found about 300 words identical or related to the Malayo-Polynesian, and hence concluded that the Malayan and Papuan languages have had, and still have, in part the same grammatical forms. But viewed in comparison with the Papuan languages illustrated in Vol. III of the Reports of the Cambridge Expedition, Dr. Meyer contends, as he and Georg v. d. Gabelentz stated in 1882, that Kern's conclusions are untenable, and that the Mafur is a mixed language consisting of an originally Papuan element with a large influx of Malayo-Polynesian words. That this is doubtless the correct view is shown by similar phenomena where Papuan and Melanesian languages have come into contact, as *e.g.*, Savo (Solomon Islands), Mailu (British Papua), Tagula (Louisiades), Jotafa (Humboldt Bay). In his conclusion Dr. Meyer briefly refers to the existence of Papuan languages as premising the existence of a Papuan race, and the possibility of a future discovery of aborigines in the interior of New Guinea. These, he considers, may be found either to be one race with great variation, or, as he thinks more likely, a mixed race of "Negritos" and "Malays," using the latter term in its broadest sense.

The paper is suggestive of a rich field of enquiry which requires investigation in Netherlands New Guinea and the neighbouring islands. S. H. RAY.

Folklore.

Johnson.

Folk-Memory, or the Continuity of British Archæology. By Walter Johnson, F.G.S. With illustrations. Oxford: Clarendon Press, 1908. Pp. 416. 22 × 14 cm. Price 12s. 6d. **46**

The researches of Sir Arthur Mitchell into Scottish survivals from prehistoric times have evidently served as a model for the present volume, which applies the same methods to England, though the sub-title suggests the inclusion of Scotland. "Folk-memory" is not a very happy phrase, though most will probably divine its relation to folk-lore, and the author is careful to begin by defining the term: "By folk-memory we mean the conscious or unconscious remembrance, by a people collectively, of ideas connected with the retention of rites and superstitions, habits, and occupations." Those who read through Mr. Johnson's present work will be enabled to understand the

definition, and perhaps frame a better one themselves, though it is difficult to cover so wide a field in one view. The author's previous investigations have made him familiar with certain phases of prehistory, and he devotes several chapters to the ages of stone, bronze, and iron. He is confessedly more concerned with popular traditions as to our earliest monuments than with their scientific exploration and classification, but in a table that is said to be compiled from various named authorities he should have been careful to quote correctly, and it would be difficult to find any recognised authority for some of the assertions on p. 51. About the earliest remains of man there may well be some difference of opinion, but at least Dr. Rutot and his followers would be surprised to find Puy Courny parallel to the Kent plateau, the former being generally regarded as Upper Miocene and the latter as Middle Pliocene. Mildenhall is a misleading site for English examples of the Moustier type, and it would be better to specify High Lodge, as other types have been found at Mildenhall itself.

According to Mortillet (another of the authorities mentioned), the pigmy (or rather pygmy) flints belong to the beginning, not to the end, of the neolithic period, but the most remarkable equation is the next in order: bronze is associated with the Hallstatt period (which really opened the Iron Age on the Continent), and the Bronze Age is omitted altogether. In these days of cheap and multitudinous handbooks there is little excuse for blunders of this kind; and the author is safer and more convincing on matters of folklore and personal observation. Several large subjects that have been hotly debated from time to time are conscientiously summarized in such chapters as those on dene-holes, linchets, dew-ponds, old roads, white-horses and other figures on the chalk downs; but, in spite of much research and argument, little fresh light is thrown on these problems, and most readers would be inclined to regard them as insoluble.

The main object throughout is to show a continuity of habit and observance from the earliest times to the present, and in a general sense few would be disposed to maintain the contrary; but the instances chosen are not always the most convincing, and more than once the author is constrained to note the fallibility of tradition, and incidentally the weakness of his argument. Thus on p. 260 he shows that all correct notions about a gun at Old Sarum had vanished within little more than a century, and on p. 318 the discontinuity of tradition is made clear on the subject of dew-ponds. Dene-holes, again, evoke the following remarks on pp. 231, 233: "The folk-memory of the Chislehurst mines is of an unsound character," and "folk-memory is, unfortunately, in both cases, a broken reed." Far too much weight also is laid on fairy-tales in connection with barrows and megaliths, and justice is hardly done to the archaeological aspect.

Among obvious slips may be mentioned the confusion of two sites forty-five miles apart—Winklebury near Basingstoke and Winklebury in Cranborne Chase explored by Pitt-Rivers. A more serious error occurs in a quotation on p. 163, as the Mold "corselet of Etruscan design, probably of the Romano-British period," has been for some time known to be a peytrel (breast-armour for a pony) of native work, dating from about the end of the Bronze Age.

In spite of such drawbacks, the volume contains much interesting and out-of-the-way information, and the attempt to make the dry bones live is to be commended. The mental effort required to assimilate information that must necessarily be somewhat disjointed is considerably alleviated by the excellent type and handiness of the book; but the collection of the notes at the end is not an unmixed blessing, and, apart from the photographs, the illustrations leave much to be desired. Age is the only merit of the print chosen for the frontispiece.

R. A. S.

Ethnology.

Matsumura.

A Gazetteer of Ethnology. By Akira Matsumura. Tokyo: The Marusen-Kabushiki-Kaisha, 1908. Pp. xiv + 495. 20 x 13 cm. **47**

The author of this handy little book of reference has made a bold attempt at a difficult task. The need of a dictionary of tribe-names has long been felt by students of ethnology, but compilers have hitherto shrunk from a task which is not only excessively laborious but which must of necessity meet with severe and searching criticism—criticism which, from its very nature, it challenges.

The contents of the volume are as follows:—First comes an alphabetical list of 8,000 tribe-names, with the locality stated after each; next a series of appendices, giving respectively a table of races and peoples arranged under the political divisions of the world; a bibliography of works used in the preparation of the volume; an index of race-names written in *Kana*; an index of the Chinese names of races and peoples; and finally six ethnological maps of the various continents and Oceania. One of the chief difficulties which the author had to face in the preparation of the first and main portion of the book is that afforded by the exasperating variation of names applied to the same tribe by authors of different nationalities. The differences of spelling seen in the works of English and French and German authors are puzzling enough, but in that most difficult of continents to catalogue—Africa—the fact that many travellers have adopted the Swahili names of tribes makes confusion worse confounded, because in this case it is the initial letter which is changed. As far as possible the author has taken pains to enter a definite tribe under more than one of its appellations. For instance, there is a heading *Danakil* (the plural form), and again *Dankali* (the singular), as well as the totally different name *Afar* applied to the same people. It would be easy enough to point out omissions, most of all with respect to Africa, and next with regard to South America, but the author would be the first to admit that the list is imperfect; in fact it is impossible that a first edition of a work of this kind should be without fault, especially when it is of such an eminently handy compass as this small volume. Anthropologists will rather be grateful to Mr. Matsumura for the labour he has undertaken in preparing a work which will be of the greatest use to anthropologists of all classes; the rectification of omissions and the addition of further names in accordance with the advance of exploration will be a far more simple matter than the work already accomplished.

T. A. J.

America, South.

Outes.

Alfarerías del Noroeste Argentina. By Felix F. Outes. (*Anales del Museo de La Plata, Tomo 1, Segunda Serie.*) Buenos Aires, 1908. Pp. 5-49. **48**
38 x 28 cm.

If, in the words of Professor Flinders Petrie, pottery "constitutes the essential" alphabet of archaeology in every land, the author of this beautiful treatise on the pottery of the North-west of the Argentine Republic deserves the gratitude of every student of South American antiquities. The work is in every respect creditable to the institution which has made possible its publication in so handsome a form, the printing is excellent, the numerous coloured plates of great beauty, and the work of Professor Outes amply testifies to the adequacy of the language of Cervantes as a medium for the expression of scientific thought.

The material on which the work is based is, for the most part, preserved in the National Museum at La Plata; much of it was collected by Methfessel and Ambrosetti in the provinces of Catamarca and Tucumán, whilst many of the examples described form part of the collection of Señor S. A. Lafone Quevedo.

It is unfortunate that so many of the specimens lack definite antecedents—that they should be, in fact, "drift" material. The derivation of many examples is highly

doubtful, and in comparatively few instances is any record available as to the precise locality, circumstances of discovery and associated artifacts. This is the more to be regretted since precise information of this character is sorely needed at the present day in order to advance the science in all parts of South America. Fully appreciating this difficulty, the author has generally resisted all temptation to theorise, limiting his work to a careful examination and detailed description of each specimen, only allowing his views on the wider aspects of the subject to appear in the brief but extremely interesting *Observaciones* appended to every chapter.

Broadly grouping his material into "vessels for domestic use" and "funerary urns," the author has subdivided the pottery according to form and character of its decoration. Dealing first of all with an interesting class covered with designs of textile derivation painted in red, white, and black, which he considers to be of archaic type, he proceeds to describe pots painted in red and black and the very characteristic "footless vases" (*vasos apodos*) bearing zoomorphic and occasionally phytomorphic patterns. Among the former, a serpent having a head at each extremity of the body, the *Rhea* and a batrachian are commonly presented in a somewhat conventionalised style. The urns of yellow clay, painted with strangely schematic anthropomorphic designs in black, are especially interesting, and doubtless could tell us much of primitive religion if we knew their secret.

The peculiar little boss, or projection, not infrequently moulded into the shape of an animal's head, usually to be noted on "footless vases," is explained in a satisfactory manner by reference to a quaint little "portrait pot" from Pachacamac, and is shown to be a point of support for the rope which bound the vessel to the shoulders of the bearer. The wide diffusion of these "footless vases" is commented upon, for they range far afield from the Peruvian culture centre supposed to be their place of origin. One notes the rarity of incised ornamentation, the crude beginnings of moulding in relief, and entire absence of elaborate double and triple pots, such as are common in the Peruvian coast region and in Ecuador.

Professor Outes very rightly, in the present writer's opinion, deprecates the unfortunate tendency which has at times arisen to describe the pottery of the New World in terms derived from the archæology of the Mediterranean region. In the present very imperfect condition of our knowledge of South American technical development it would seem preferable to avoid the use of all descriptive expressions which by reason of their classical associations tend to confuse the mind, and from this, perhaps, extreme point of view it may even be regretted that such words as "climankistron" and "ankistron" have been made use of in the work under consideration. Apart from this mild criticism, nothing but praise can be given to this admirable contribution to the study of Man in America.

One seeks in vain, it is true, for information on the chemical nature of the pigments employed in the decoration, but it may be presumed that powdered hematite and oxide of manganese, as determined by the present writer in certain Chilian examples, furnished the palette of the Indian artist. The pigments, the method of building the pottery, and means by which such excellent baking was secured, will, however, doubtless be fully dealt with in the important work now in course of preparation by the author, *Sobre la Evolucion de las Artes plasticas entre los primitivos habitantes de la Republica Argentina*.

However impressed he may be by the thoroughness of the work under consideration, the reader cannot fail to be struck with the backward state of South American archæology. As yet no "corpus" of Argentine or Chilian pottery exists, nor is such an aid to study likely to be available for many years to come. So predominant has been the interest of Peruvian culture that the wider field stretching afar beyond the widest bounds attributed by enthusiasts to the "Inca Empire" has suffered neglect.

As matters stand, a work like the present raises a host of tantalising problems, and cannot in the nature of things answer any of them. Thanks to scientific excavation in Peru we begin to see that the past was even more wonderful than the picture drawn of it by Garcilasso, and who can doubt that a rich harvest of knowledge awaits the investigator amid the broad pampas of the Argentine and quebradas of Chile?

OSWALD H. EVANS.

Ceylon: Stone Age.

Sarasin.

Ergebnisse Naturwissenschaftlicher Forschungen auf Ceylon. Von Dr. Paul Sarasin und Dr. Fritz Sarasin. Vierter Band: *Die Steinzeit auf Ceylon.* 49 Wiesbaden, 1908. Pp. 93. 37 x 29 cm.

Under this title Drs. Paul and Fritz Sarasin have published a description of their work in Ceylon during the winter of 1907, consisting of the systematic excavation of a number of Vedda caves undertaken with the view of determining whether the then commonly accepted view that there was no Stone Age in Ceylon was in fact accurate. Particulars are given of a number of rock shelters explored; these were situated at Kataragam in the south of the island where no Veddass now exist, and in Uva in the present Vedda country. Not all the caves investigated yielded evidence of prehistoric habitation, but from a certain number were obtained quartz, chert, and shell implements which put the matter beyond doubt and conclusively show that Ceylon formerly possessed a Stone Age. The greater part of the work is taken up with a discussion of the quartz and chert artifacts found and their significance, and good illustrations of the implements themselves are given. These show that the quartz implements discovered by the Drs. Sarasin belong to the same type as those figured by the writer in MAN (1908, 63), but in addition to these the Sarasins found hammer-stones, a few pieces of worked bone, and a series of shells of the large land snail (*Helix phanix*), the outer whorl of each shell being broken away to form a circular hole large enough to allow its sharp edge being used as a scraper. These shells, in fact, constitute a primitive plane, and in every way resemble those found by Roth in use in Queensland at the present day.

Much of the book is occupied by a comparison of the quartz implements with those found in Europe; indeed, the frequency as well as the abrupt manner with which throughout the book parallels are cited is distinctly distracting.

Finally, since the authors found neither pottery nor axe-heads associated with their other prehistoric material they conclude that the Ceylon implements belong to the palaeolithic age, though they apparently admit that in many respects the best implements approach the neolithic.

The writer has already expressed his opinion (MAN, *loc. cit.*) that these Ceylonese quartz implements must be regarded as neolithic, and in this view he has the support of Mr. Reginald Smith.

Further, it is important to note that the implements under discussion when not found free on the surface of the soil, as on the Bandarawela *patanas*, are associated only with the bones of animals still plentiful in Ceylon.

In conclusion, reference must be made to the beauty of the illustrations, which are in every way worthy successors of those illustrating the authors' previous works.

C. G. SELIGMANN.

Africa, South.

Native Races Committee.

The South African Natives: Their Progress and Present Condition. Edited by the South African Native Races Committee. London: Murray, 1908. 50 Pp. xii + 247. 22 x 14 cm. Price 6s.

There is little in this book of special interest to the anthropologist, for it is not so much a treatise on the South African native as an analysis and summary of the

laws which have been made for his control and the schemes that have been devised for his welfare. What little there is that concerns the anthropologist is, however, of great interest. The book reveals the effects on the weaker race of the clash of cultures in South Africa. It shows that the virtues of thrift and enterprise and the vices of greed, selfishness, disloyalty and lawlessness are encouraged by the disintegration of the tribal system and the replacement of communism by individualism. The loss of the old ethical code has been compensated by the adoption of a higher code in only a proportionately small number of cases and in the case of the majority of the natives the weakening of native laws tends to increase immorality. It is unquestionable that for the time being at least the natives as a whole from an ethical standpoint suffer from the change half unconsciously forced upon them by Europeans. The wonder is that a virile and exceedingly conservative race rudely jerked across forty centuries of time has not suffered still more in the process. A chapter on the Ethiopian movement is of great interest. It reveals the confused gropings of men who have accepted Christian doctrine but seek to evolve a system of worship better adapted to the native temperament than those of the various English sects. To the churchman and the politician the Ethiopian movement causes grave uneasiness (though it is reassuring to learn that most of the turbulence and sedition of which the Ethiopians have been accused was not of spontaneous growth but was instigated by negro agitators from the United States of America), but to the anthropologist the movement is of intense interest for, in that it affords a bond for the unification of different tribes, it is a sign of the dawn of natural self-consciousness in a race that has scarcely yet realised its homogeneity.

The members of the South African Native Races Committee deserve thanks for the production of a volume which as a work of reference will prove itself indispensable to all interested in the political, social and economic position of the South African native.

RALPH DURAND.

Russia: Anthropometry.

Tarnowsky.

Les Femmes homicides. Par Dr. Pauline Tarnowsky. Paris: Alcan, 1908. Pp. viii + 591. 25 x 16 cm. Price 15 francs.

51

The work comprises a detailed anthropometrical and physiological study of 160 Russian women under sentence for murder. They are compared with other series of observations by the same author on women of the vicious and criminal classes and with groups of others both educated and illiterate who had manifested no criminal tendencies. The result is a great addition to our knowledge of the dimensions and physiological psychology of the women of Central Russia.

The group of murderesses present somewhat smaller head dimensions than the others, particularly in head length and horizontal circumference, the differences being rather greater than could be accounted for by random sampling. In facial characters no significant differences exist between the members of the criminal classes and the illiterate peasants with whom they are contrasted. The educated women, however, present distinctly longer faces and longer and probably narrower noses. In stature, weight, and most bodily dimensions no characteristic differences are shown. The criminal and vicious groups are significantly darker both in hair and eye colour than the non-criminal groups.

The various features have been studied in relation to the supposed motive for the crime, without, however, in most cases yielding any statistically significant result, owing to the comparatively small numbers available. It is interesting to note that dark traits are most prevalent amongst those who committed murder under the impulse of jealousy and least in the group whose motive was avarice. The heredity of each murderess has

been investigated as far as possible and a list of all the stigmata of degeneration presented by each individual is given. Although nervous disorders, alcoholism, and insanity are shown to be common antecedents, there is no evidence that these stand in a causal relationship to the mental state of the individual prisoner. This work will be welcomed as a most complete study of individuals and should find a place in the library of criminologists.

F. S.

India, North-West.

Pennell.

Among the Wild Tribes of the Afghan Frontier. By T. L. Pennell, M.D., with an introduction by Field-Marshal Earl Roberts, V.C., K.G. London: Seeley, 1909. Pp. 324. 23 x 15 cm. Price 16s. **52**

Dr. Pennell in this interesting book gives an account of his experiences as a medical missionary on the north-west frontier of India, and incidentally throws a good deal of light on the customs and social system of the tribes with which he came in contact. The book is not, and is not intended to be, scientific; but Dr. Pennell is evidently well qualified for more strictly anthropological work, and if he finds time and opportunity, perhaps he may in future record the result of his observations on the structure of the Afghan tribe, for instance, or other kindred subjects, or even take some anthropometrical observations duly classified according to tribe or locality. Such observations, perhaps, would be found not to clash with his hospital work.

Dr. Pennell takes a wide and liberal view of the religious question, and does not, like some missionaries, consider that the value of his teaching is to be tested by counting nominal converts. The influence of judicious and courageous medical missionaries of the type of Dr. Pennell, who do not try to break down all aboriginal customs and ideas, cannot but be good.

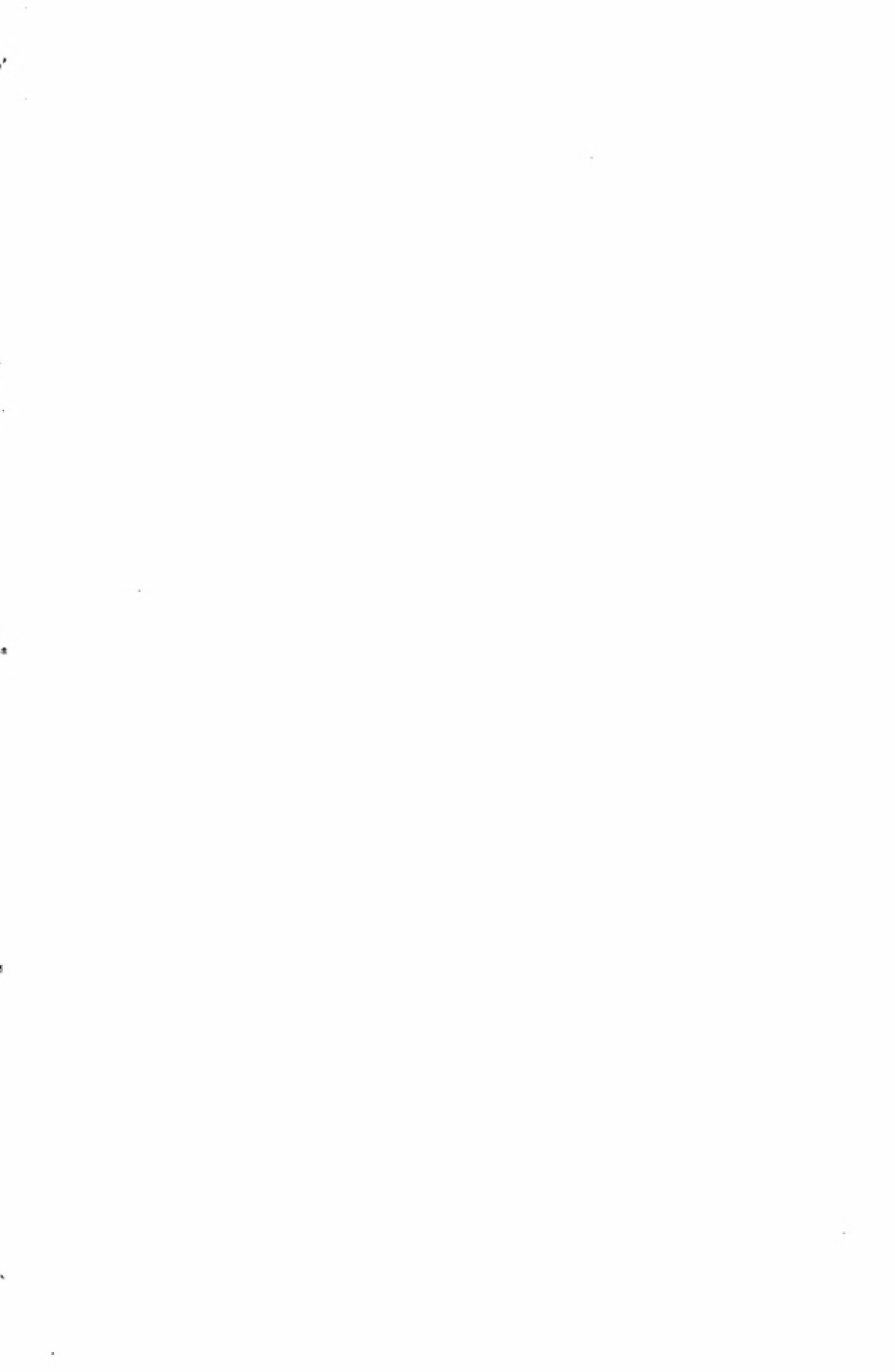
The author's experiences in his wanderings as a *sādhū* or friar in native garb, but making no secret of his Christianity, are very interesting. He depended, as other *sādhūs* and *faqirs* do, on alms for his maintenance, and generally met with success. This is a form of religious practice which appeals with great force to the Oriental mind, and it may yet produce startling results when followed by a man with the proper qualifications.

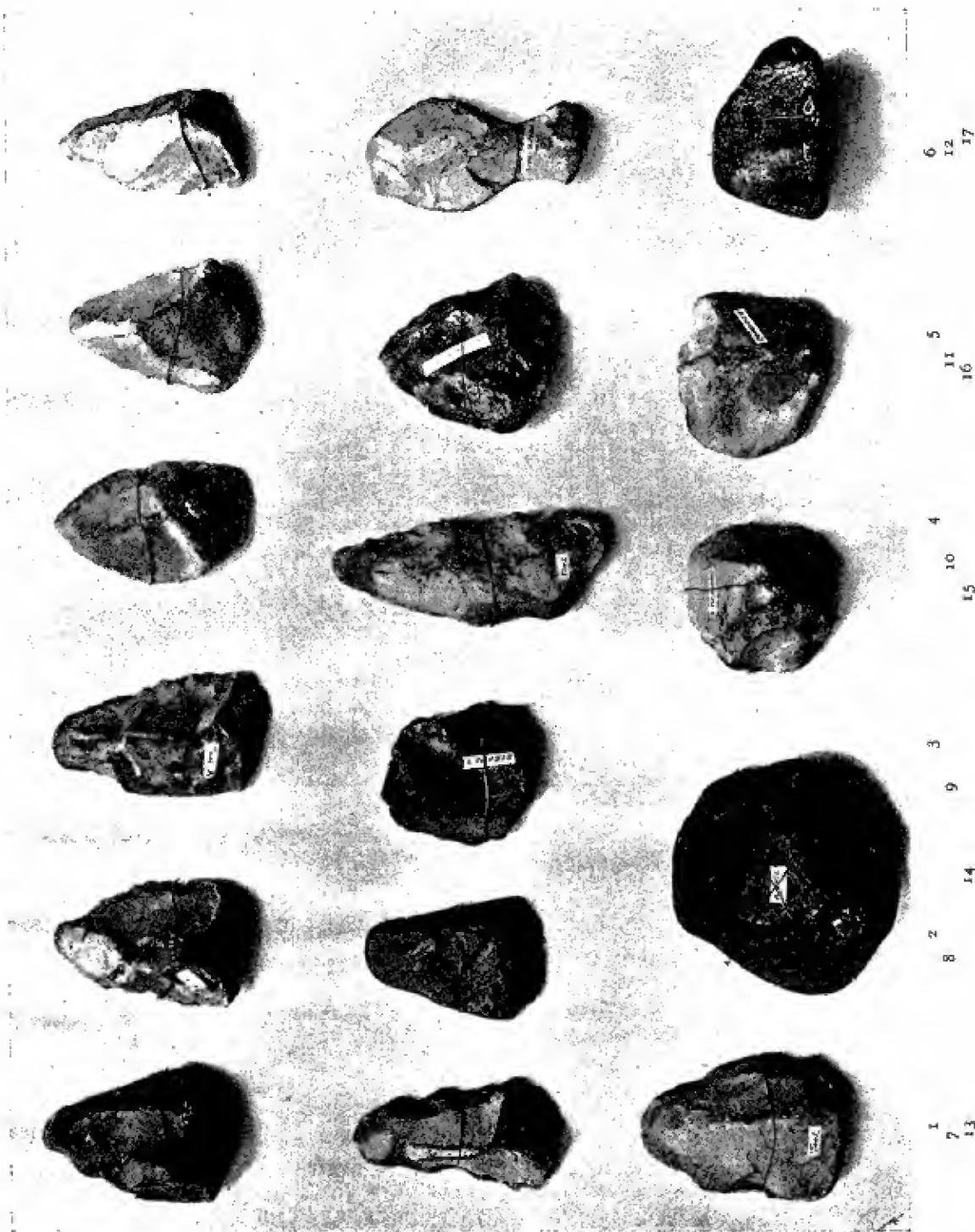
The narrative is plain and unaffected, and the many interesting stories it embodies are told in effective style. I may add that I recognise an old friend of mine in the Christian landowner mentioned on page 309, and had twenty-five years ago to settle several disputes in which he was concerned.

M. LONGWORTH DAMES.

ANTHROPOLOGICAL NOTE.

WE are glad to hear that, owing to another munificent donation of £2,000 from Mr. C. F. Foster and Mrs. Rawlings, the fund for the building of the new Museum of Archaeology and Ethnology at Cambridge now amounts to over £10,000, and, consequently, it is proposed at once to begin the erection of the first portion of the building. It is estimated that the cost of this portion, known as block I, will be rather more than £11,000. The building has been designed by Mr. T. G. Jackson, R.A. The main galleries of the completed building (blocks I and II) will probably be utilised as follows:—On the ground floor there will be an educational series arranged on the Pitt Rivers system; the first floor will contain the archaeological collections, the Cambridge Antiquarian Museum, and the Walter Foster bequest; on the third floor the ethnological collections will be arranged. **53**





WORKED FLINTS FROM RAISED BEACH, LARNE.

ORIGINAL ARTICLES.

Ireland: Archæology.

With Plate F.

Layard.

The Older Series of Irish Flint Implements.* *By Nina F. Layard,**F.L.S.***54**

In bringing these Irish flint implements to the notice of the Royal Anthropological Institute, I do not pretend to be either the first to have found them in co. Antrim, or even to be introducing a subject that has not already had much attention paid to it in Ireland. In England, as far as I can ascertain, but little notice has been taken of this particular series.

More than forty years ago Mr. Du Noyer recognised roughly-worked tools in and below the raised beaches which are to be found in various parts of the north-east coast of Ireland, especially where it is broken into bays, estuaries, and marine loughs. Both he and Professor Hull believed them to be of Palæolithic type. Later Mr. Knowles of Ballymena read a paper on the subject before the British Association at Dublin, and again drew attention to these flints in an address before the Royal Irish Academy in 1883. He, Mr. Gray and others, have made collections of them at various times, and more than once committees of investigation in connection with the Belfast Naturalist's Field Club have examined these raised beaches, to try and determine the real origin of the flints, as well as the geological conditions under which the beaches attained their present height.

My first acquaintance with these rich deposits came about in the following way. While waiting at Larne last October with Miss Loraine, we took a stroll along the borders of the lough, and were greatly surprised to find flint flakes, spalls, and a finished tool of unusual form, lying on the shore at our feet. It was evident that we had chanced upon the *débris* of some prehistoric flint factory, but I was quite unaware that this spot was the battle-field of the Irish anthropologists. Possibly the first impression of an English collector may not for this reason be of any the less value, as the striking difference in the appearance of these flints, compared with the tools to which we are accustomed in England, is probably more noticed by English than Irish antiquaries, the latter having been acquainted with them for many years.

Some twenty English collectors, many of them eminent experts, to whom I have already shown the specimens obtained at Larne, have with few exceptions declared the type to be something new and unfamiliar. Taken as a whole the flints certainly do not correspond at all closely either to the Palæoliths or Neoliths so far found in England. To show the extreme richness of the deposit, in sixteen hours spent on the shore at various times, I collected nearly 1,200 worked flints. They lay thickly strewn along the beach, the smaller flakes higher up, and many of the heavier cores and spalls, &c. only to be found at low water. The flints at the higher level which do not come in contact with the seaweeds, have a white porcellaneous patination, which in some cases is so thick as to have entirely taken the place of the flinty substance, that is to say, the whole flint is changed by chemical action and exposure.

Lower down, where the flints are more constantly covered by the water, and where seaweeds are found growing on the worked stones, a warmer colour is noticed, varying from creamy yellow to a deep iodine red. Here the flints are more rolled and disguised than higher up, but such a complete series in the process of obliteration can be found, that to anyone working actually on the spot it is soon as easy to recognise the human touch on a tool almost at its last stage before becoming a mere rolled pebble, as it is to be certain of the sharper outlines of the less rolled flints.

In the collection at Ipswich I have a large series of fine cores which clearly demonstrate this point.

* Extract of paper read before the Royal Anthropological Institute, March 23rd, 1909.

Although artificially fractured flints abound on the spot, carefully shaped implements are more rarely to be found. Among them I have a good end scraper, much larger and clumsier than the usual Neolithic scrapers of the same type. It closely resembles a tool which I gave to Sir John Evans, found in the gravels of my garden in Ipswich, and which he identified as Palæolithic (Pl. F, 9). Another implement, which is triangular, is also somewhat Palæolithic in outline, but it is worked on one side only and is much abraded (Pl. F, 11). Others are strongly reminiscent of well-known Drift types, being roughly pointed, and with the crust left on for the hand grasp (Pl. F, 1-7, and Fig. 2). Again, there are shapes that bear a closer resemblance to some of the earliest Neolithic types, such as the so-called Larne Celt, a long, narrow, unground tool. The spoon-shaped implement which I found on my first visit (Pl. F, 12) corresponds somewhat to a specimen from the Yorkshire wolds, which is figured by Sir John Evans in his book on stone implements. I am not aware that another of this form has been found at Larne. Flakes and chips of various shapes with conspicuous bulbs of percussion abound. I have a few leaf-shaped flakes apparently made for pointing weapons, but anything in the shape of a true arrow head or the usually accepted Neolithic scraper is entirely absent. Four-pounders will be seen on Pl. F, 14-17.

Before I had had the opportunity of referring to any Irish literature, I secured a geological map of the district to see if it would throw any light on the subject. Noticing that raised beaches surrounded parts of Lough Larne I concluded that the flints had been denuded out of these gravels, as they appeared far too ancient for mere surface finds, and I have since found that this is the case. Although there can be no doubt that we have on this coast the remains of very extensive flint workings, where weapons were manufactured not only for the makers themselves, but for others farther removed from the sources whence flint could be obtained, it is difficult to believe that all the shapes found were merely wasters or roughed out tools intended to be finished elsewhere. Among the coarse spalls and flakes lying about, doubtless at first the mere *débris* of the flint workings, many appear to have subsequently received specially directed blows in order to fashion them into rude tools, and some are distinct celts, chisels and pointed implements.

It is noticeable that, notwithstanding the many acres of land covered by these raised beaches, every foot of which is crowded with worked flints, nothing in the shape of a ground weapon has yet come to hand. From this we may infer that the art of grinding was unknown to the workers on this site, although the dwellers among the sand hills not far distant, who must have been later comers, have left plenty of traces to show that they had attained to it.

It appears to be the general opinion of geologists that the 25-foot raised beaches to which these flints belong were elevated to their present height during Neolithic times, but it does not necessarily follow that the flints embedded in them were freshly made and left in the gravels at the time of their first laying down. To decide this point it is all-important to examine the condition of the worked flints found at the lowest levels in the gravels. This I have had the opportunity of doing since exhibiting the flints at the Royal Anthropological Institute, and some of the observations made during the month of April are here included.

Through the kindness of Mr. Chaine, the owner of Larne Harbour, who put workmen at my disposal, and allowed me to cut down a section of the gravels on his property, the flints have been studied *in situ* (Fig. 1). I also had the great advantage of the help of Mr. Knowles and Miss Outram, and together we made a careful examination of every foot of the section as it was cut down. The contents of each level were inspected, and every worked flint gathered out and numbered to prevent any possible mixing of the specimens.

The results were not altogether similar to those arrived at by Messrs. Praeger and Coffey when they examined a similar section in 1904, from which it will be seen that there is a want of uniformity both in the laying down of these gravels, as well as in the condition of the flints in various parts of it.

In the report of Mr. Praeger's work in the Proceedings of the Royal Irish Academy

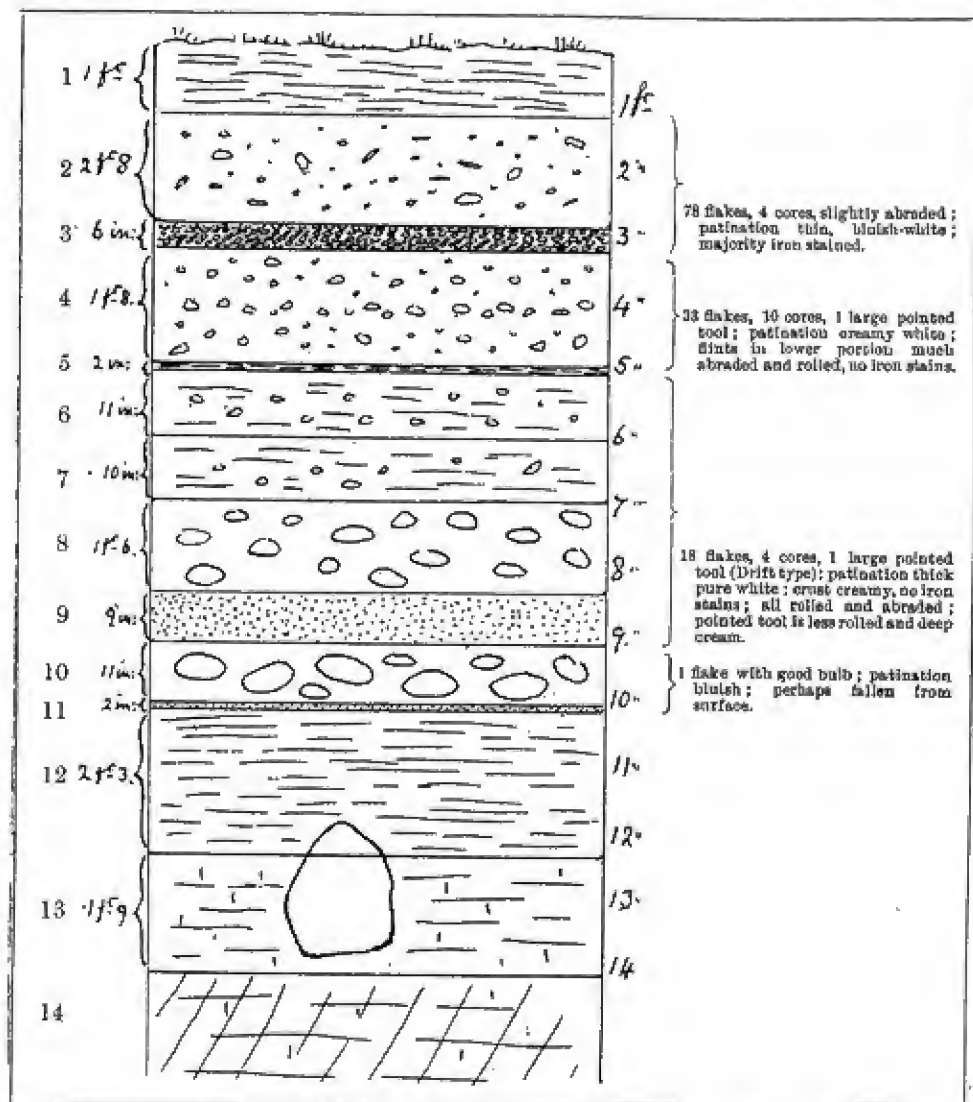


FIG. 1.—SECTION OF RAISED BEACH, LARNE, EXAMINED APRIL, 1909.

1. Surface soil, dug and turned back; 2. Coarse black sand and pebbles varying in size; 3. Coarse gravel, consisting of closely-packed small-rolled stones mostly limestone not mixed with earth; 4. Rolled and angular pebbles; 5. Well-defined band of dark brown earth, no stones; 6, 7. Earthy bands with rolled pebbles of basalt and limestone; 8. Well-defined band of large rolled stones; 9. Chocolate-coloured fine gravel; 10. Band of large boulders of basalt and limestone; 11. Fine iron-stained gravel; 12. Dark earth devoid of stones; 13. Red boulder clay with large boulders penetrating No. 12; 14. Blue boulder clay seen in section close by.

I find the following remarks:—"Our experience is, and it appears to have been that of the Field Club committee, that the flints with abraded crust occur chiefly in the higher layers, and for the most part in the disturbed surface portion. Lower down the flints are sharper and often unpatinated, or only partly patinated." The writers also

add, "The evidence of the unrolled flakes in the lower beds points to the working of the flints having been contemporary with the laying down of the gravels." That these conclusions differ from those formed by Mr. Knowles and myself in our work last April, a glance at the drawing and description of the section opened on Mr. Chainé's property will show. (Fig. 1.)

To a depth of three feet from the surface, though numerous flakes were found, the majority were so slightly patinated as to show the colour of the flint through, producing a bluish effect, while in some the surface of the flint was hardly changed at all. Most of the specimens at this level were stained with iron in blotches, and also following the lines of the ridges. Below this level the iron stains ceased entirely, while the flints became even more thickly coated with a white porcellaneous patination. At a depth of 9 feet 2 inches, the lowest level at which any number were found, the flints were much abraded and rolled, and as this condition could not possibly be reached after they were included in the present gravels, we can but infer that they had been exposed for a great length of time on a shore before the sinking, which preceded the subsequent elevation, took place. This is presuming that the gravels were laid down in the usual way, which may possibly be open to question.

Moreover, as the raised beach is almost entirely composed of rolled stones of basalt and limestone, with hardly one per cent. of unworked flint, it would seem that these remnants left by the flint workers are really as foreign to the raised beach in which

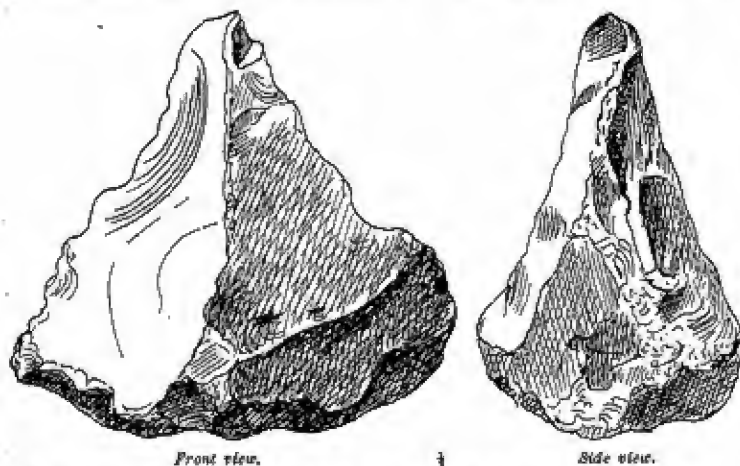


FIG. 2.—IMPLEMENT OF PALÆOLITHIC TYPE, RAISED BEACH, LARNE.

they are embedded as those which lie at the present time on the lough border are foreign to the shore. Apparently we have yet to find their real birthplace.

It is also perhaps worthy of remark that the flints found on the Curran Larne, and on Island Magee, are at a con-

siderable distance from the position in which the natural flint occurs, for it is above the other side of the lake that the limestone rocks with their bands of flint are to be found.

In the Proceedings of the Royal Irish Academy (Series II, Vol. II, p. 437) Mr. Knowles had already stated that he had found flints in this rolled condition at great depths, and had inferred from this that they were older than the formation in which they are found, and certainly our researches so far go to confirm this view. At the same time the extreme irregularity of the deposition of the gravels to some extent nullifies the value of conclusions formed from these facts. As a permanent record of the investigation I have preserved material from every level as the raised beach was cut down, with the flints included in it, an examination of which will be more convincing than mere written records. A very comprehensive collection of the various types of tools from the raised beaches of Larne, Island Magee, and Kilroot, is in Mr. Knowles's possession. Contrasting them with the later work of the Neolithic

dwellers of the Irish sandhills, he has designated these rougher specimens "the older series," and, following his lead, I have also adopted this title for them. The fact of finding flints, which by many are considered Neolithic, at such enormous depths in gravel is subversive of all our experience so far in England. Considering this, as well as the crude appearance of the workmanship, I think, even if we are convinced that they belonged to the later Stone Age, it would be an advantage to apply some such distinctive name as that suggested. The most remarkable instrument found in our recent excavation was a large tool of Palæolithic appearance, which came from a depth of seven feet. It is worked on both sides, and carefully shaped at the butt for the hand-grasp. The colour, unlike the rest of the flints, is yellow, as though gravel-stained (Fig. 2).

In conclusion, the following quotation from Mr. Knowles's paper, read before the Royal Society of Antiquaries in Ireland, will give some idea of the antiquity which must be assigned to these relics. He says: "Since the time when these implements were lying about the shore, &c., the following events have happened:—

"1st. The gradual sinking of the shore and the formation of the gravels 20 feet in thickness, which include the worked flints.

"2nd. The elevation of the shore till the surface of the gravel stands 20 feet above high-water mark."

NINA F. LAYARD.

Anthropology.

Deputation.

Anthropology and the Empire: Deputation to Mr. Asquith.

55

On March 11th the Prime Minister received, in his private room at the House of Commons, a deputation supporting a memorial, signed by a great many distinguished administrators in India and the Colonies and others, urging the necessity of establishing an Imperial Bureau of Anthropology within the Royal Anthropological Institute.

The members of the deputation were Mr. Russell Rea, M.P., Professor William Ridgeway, Sir Richard Temple, Sir Edward Candy, Professor Myres, Mr. G. W. Neville, Sir Thomas Holdich, Sir Harry Johnston, Sir W. Anson, M.P., Mr. S. H. Butcher, M.P., Mr. Hart-Davies, M.P., and Mr. Anuan Bryce, M.P.

Mr. Asquith was accompanied by Mr. Hobhouse, M.P., Financial Secretary to the Treasury, Sir Francis Hopwood, Colonial Office; Sir T. Holderness, India Office; Lord Dufferin, Foreign Office; and Mr. Nash and the Hon. E. S. Montague, M.P., private secretaries.

The memorial, which is published in full in *Journ. Roy. Anthr. Inst.*, XXXVIII, p. 489, pointed out the importance of anthropology to administration and trade and prayed that the Government would make a small annual grant for the establishment of an Imperial Bureau of Anthropology within the Institute.

MR. RUSSELL REA, who introduced the deputation, said they had a little demand to make of the Prime Minister, who, he thought, seldom received a demand so small in itself and at the same time promising so much good if granted.

PROFESSOR RIDGEWAY, in explaining the object of the deputation, said that the science of anthropology was now sufficiently advanced to be used as an applied science, and it was for its use in that way, and in that aspect only, that they asked for the assistance of the Government. Their request fell under two heads: They were of opinion that anthropology could be made of the highest possible value for the service of the State for training administrators for the Indian, Colonial, and Consular services; and secondly, they regarded it as a factor in commercial success. As to the first something had already been done. Some great administrators of the Empire, including Sir Reginald Wingate, had asked them to provide training for officials; and probationers for the Soudan were now being trained at the Universities in this science. On the

other hand, our trade was suffering from the want of training in anthropology. The Germans were quite clear as to its value in trade, and were spending £10,000 a year on the teaching of ethnology. As much as £800 a year had been spent in this way in China for the purpose of advancing trade. Both in China and Japan merchants had pointed out the drawback to our trade caused by the lack of this knowledge in our Consular service and traders. A case in point was the business done in India in the sale of travelling bags and holdalls. In this trade English firms had been ousted by German firms, who knew the habits and prejudices of the people, and who, unlike their English rivals, avoided the use of leather in manufacturing these articles for the natives of India. One German firm was making a large fortune in this way. What the Royal Geographical Society had done for geographical science, what the Royal Society had done for science in general, this Institute proposed to do for anthropology. It already included most distinguished men, and had correspondents in all parts of the world. Their reports ought to be carefully indexed for reference to each race. The need for this might be illustrated by the case of an official untrained in anthropology, whose action led to a misunderstanding on the part of a border tribe. A military expedition followed, the cost of which was probably ten times as much as the Institute asked for in the next hundred years. Professor Ridgeway proceeded to deal with the need of anthropometry, an important branch of the science, whose claims he advocated. Measurements and other details of physical characteristics should be taken in every school.

MR. ASQUITH : That would cost a lot of money.

PROFESSOR RIDGEWAY : Not as we propose to carry it out. It might be made part of the duty of schoolmasters and medical inspectors to measure the children.

Continuing his statement on the main proposal Professor Ridgeway said that they could make a good start with £500 a year. Some years ago the Royal Geographical Society received a similar grant on condition that they placed their collection of maps at the service of the public. The effect of such a grant would be to increase the efficiency of the empire in all directions ; to lessen friction with native races and stimulate and help our commerce.

SIR EDWARD CANDY supported the objects of the deputation from the point of view of the Indian official. He called attention to the fact that among the voluntary subjects which the Civil Service probationer took up was Indian Civil Law.

MR. ASQUITH : Would you make anthropology a compulsory subject ?

SIR EDWARD CANDY : Certainly.

SIR HARRY JOHNSTON said that the study of anthropology was almost a necessity for an empire like ours. We ought to be the first in the field in this science. Missionaries had carried on an unofficial instruction in anthropology for which we could never be too grateful. As a race, we were very snobbish, and once a grant were made and the institute called "Royal" by the permission of the King, anthropology would receive an enormous impetus.

SIR RICHARD TEMPLE said that if a man was going to command alien troops with success he must have willing obedience, and to secure that he must have a knowledge of the race and of the social training of the men who were under him.

Replying to Mr. Asquith, Sir Richard said that whether or no anthropology were made a compulsory subject in examinations it ought to rank high in the scale of importance.

MR. ASQUITH : The Institute is not a teaching body.

SIR RICHARD TEMPLE : We would collect information and disseminate it, and we should think ourselves in a position to advise the Government upon the best subjects to teach.

MR. ASQUITH, in replying, said that he was very glad to meet the members of the deputation. He fully recognised the high authority of the names appended to the

memorial; they were those of men of great administrative experience. He was entirely with the deputation in their proposition that anthropology had become, and was becoming more and more every year, not only an important, but an indispensable branch of knowledge, not merely for scholars, but for persons who in an empire like ours were going to undertake—whether in the consular service in India or in the Crown colonies—the work of administration. In his day at Oxford they studied scholarship with very little reference to anthropology. Professor Ridgeway and others had now made that state of things impossible. A young man at a university was now compelled to equip himself with a mass of knowledge from this science, which was once unknown. Much more was this the case when they came to deal with an enormous variety of tribes, customs, and usages of a more or less imperfectly developed civilisation. On that point there was no dispute. He hesitated to express a final or considered opinion as to whether anthropology should be made a compulsory subject in examinations, but he was quite satisfied it was highly desirable it should be a recognised subject of study in the normal equipment of a young man who was going to outlying regions of the empire, where he would encounter strange conditions of life. Therefore, so far as their object was to arouse an expression of sympathy on the part of the Government in the teaching of anthropology and the development of it as a study and one especially germane to the work of administration, he could assure them of the Government's hearty sympathy. But the Royal Anthropological Institute, whose claim they were there to advocate, was not itself a teaching body.

PROFESSOR RIDGEWAY explained that it was proposed to grant diplomas to those who had done good work in anthropology.

MR. ASQUITH said that the actual work of giving tuition in anthropology would be left to the Universities. Whether or no this grant were made it would make no difference once interest in the subject was aroused in the Universities. But when they asked for a grant to this Institute for the purpose, he supposed, of giving it better accommodation, larger space, greater facilities for acquiring and storing books and other materials, then arose critical questions. It would be said, "What about others?" He supposed there must be 50 or 100—certainly 50—institutions and societies carrying on most excellent work, all on a voluntary basis, and contending with great plausibility that their work would be much facilitated if an annual subvention were granted. There were, he thought—and he spoke subject to correction—only three institutions at that moment on a basis similar to that of the Royal Anthropological Institute, which received Government subventions. These were the Royal Geographical Society—and how this society obtained a grant he did not know, but it was so many years ago that no one could dispute its title—and the two British schools of Athens and of Rome, which had come in of late years, and as to whose title he thought it better to say nothing. There were only these three out of the whole of the splendid agencies of the country, on a voluntary basis, which had effectively established their title to these subsidies, and therefore he must walk very warily, and could not consider the claims of one without considering the claims of others. All he could say to them on this point was that he would bring to the notice of the Chancellor of the Exchequer, who was the person really and directly responsible, all that they had said that afternoon, and the representations they had put forward, backed with such high authority, would receive that respectful consideration which they deserved. But he could not hold out anything in the nature of an assurance or expectation that the pecuniary grant for which they asked would in the end be given. For himself he should be very glad from the point of view of imperial administration if it could be given.

The Deputation thanked Mr. Asquith and withdrew.

England: Archæology.

Palæolithic Implement found near the British Museum.*Worthington G. Smith, F.L.S.*

Smith.

By **56**

The accompanying illustration, drawn to half scale, represents a fine palæolithic



implement, found by an excavator whilst repairing a drain in Woburn Place, near the British Museum, in 1902. The digger knew nothing of implements, but preserved the flint on account of the pebble at the base. The tool remained in the digger's possession till July, 1908, when another man acquainted with stone implements happened to see it. This second man happily had my name and address, and he advised the finder to send the stone to me. The owner acted on this advice and forwarded the implement by parcel post, giving particulars of the finding, and asking that I would send him any sum I thought proper.

The implement was found at a depth of 10 to 12 feet; it is somewhat abraded, blackish, clouded livid, and lustrous all over. It agrees well with the famous Gray's Inn implement found in the seventeenth century. It is petrologically interesting on account of the oval flint pebble which forms part of the

base. The maker of the tool by clever flaking designedly left this pebble intact. The implement is larger than the Gray's Inn example and weighs 1 lb. 8 ozs.

WORTHINGTON G. SMITH.

Africa: Uganda.

Roscoe.

Python Worship in Uganda. *By the Rev. J. Roscoe.***57**

Python worship was confined almost entirely to one clan in Uganda, and had a limited sphere of influence.

The place where this worship was carried on was on an estate called Bulonge, in Buda, a district of Uganda to the south bordering on the west shores of the lake Victoria Nyanza. The temple (sabo) was situated in a forest on the shores of the lake by the bank of a river called Mujuzi. The land near the temple was cultivated with plantains by the members of the Heart (Mutima) clan. This clan had charge of the temple, which was a large conical hut built of poles and thatched with grass; the base was some 20 feet in diameter, and 24 feet or 25 feet high at the apex. The floor of the temple was carpeted with a sweet smelling grass like the lemon grass; on one side of it was the sacred place of the snake and his guardian,

who was a woman who might never marry; her name was Nazimba. A log of wood lay on the floor and a stool near it for the python; over these a barkcloth was spread for the snake to lie upon. Through the side of the hut a round hole was cut for the ingress or egress of the python. On the other side of the hut was the bedstead of the Medium (Mandwa) and his assistant, who also lived in the temple. The chief of the estate had to keep the temple in good order, and called the members of the clan to rebuild it when it was necessary.

The python had by some means been trained to come into this hut and live there; it drank freely milk which had some white clay mixed with it, and also was given fowls and small goats. The Medium daily brought a large bowl of milk from some sacred cows which were kept for the sole use of the python. This large wooden bowl was taken by the woman Nazimba and held for the python to drink from; it lay with its head over the stool and drank the milk. From time to time the Medium took fowls or goats and tied them on the bank of the river and the python went down and devoured them. These offerings were made whenever the Medium wished to have a successful fishing expedition, because the python was supposed to have power over the river and all the fish in it. Without the offering to obtain the deity's favour the expedition was supposed to be of no value. After each successful fishing expedition the Medium called all the people from the estate to a sacred meal of the fish; they had to provide the cooked vegetables and beer, and the Medium prepared the fish for the meal.

The names of the python were Selwanga and Magobwe, which are names used for men. The chief duties of the python were to give increase of children. Newly-married men or those whose wives did not have children went to seek his blessing, an assistance to obtain them. Other requests were also made to him, but he was called the giver of children.

The time for worship was at the new moon; for several days before the moon became visible the people made preparations because there was no work allowed to be done on the estate for seven days. Directly the moon appeared the drums were beaten and the people gathered for the worship; those who had requests to make brought offerings for the god; they were chiefly beer, cowry shells, and a few goats and fowls. The priest always came with a large following of smaller chiefs; the priesthood was hereditary, and the holder of it was always the chief of the estate. When the priest had received the offerings from the people and told the python what had been brought and the number of requests, he dressed the Medium in the sacred dress ready for the python to take possession of him. The dress consisted of two barkcloths, each one tied at two corners, and slipped over the head with the knot of the one on the right shoulder, and that of the other resting on the left shoulder and hanging down below the knees. Round the waist were two goat-skin aprons from white goats, the skins beautifully dressed. One of them hung in front and the other hung down behind. Round his chest was a leopard skin, and on his head he wore a crown made of a strip of goat's skin decorated with beads and the seeds of the wild banana. In his hand he held two fly whisks made from buffalo tails. When the priest had thus dressed the Medium, he gave him a small gourd cup full of beer to drink, and afterwards some of the milk mixed with the white clay from the python's bowl; the spirit of the python then came upon the man, and he went down on his face and wriggled about upon his stomach like a snake, uttering peculiar noises, and speaking in a tongue which required an interpreter to explain to the people. The people stood around and looked on whilst the drums were beaten and the python gave its oracle. The interpreter, named Lukumirizi, stood by listening until the Medium had ended his speech; when he finished his talk he fell down or lay down like a person in a sound sleep for a long time utterly overcome with his exertions. Lukumirizi the interpreter then explained what had been foretold, and told the fortunate persons whose requests had

been granted what they were to do in order to obtain their desire, and what was the medical treatment which the wife was to undergo, &c. This ceremony was repeated each day during the seven days feasting. The people were then free to return to their homes and look forward to the fulfilment of the promises. When children were born according to the promise of the python the parents had to take an offering of either a goat or fowls to the temple; if they neglected to do so their children were stricken with some disease, and the parents were soon driven to the medicine men for advice to save their families, and he ordered them to pay the proper offering to the python, and also told what herbs to use to restore the sick person.

From time to time the Medium went over to the island of Sese for cows from the god Mukasa to supply the python with milk. His reason for going to Mukasa was because the wife of Mukasa was a female python named Nalwanga, sister of Selwanga. The brother-in-law according to the usual custom of the nation has to give presents from time to time to his wife's brother. The terms used for possession are to take hold of the head (*kukwata kumutwe*) and to marry (*kuwasa*). These cows were always brought decorated with creepers around their bodies to show they were sacred animals; They were kept close by the temple and were milked daily for the python.

The kings used to send the chief of the district (*pokino*) to the python to ask for his blessing so that they might have children.

Once each year the Medium also took a gift of fish to the king from the python.

J. ROSCOE.

REVIEWS.

Africa: Uganda.

Hattersley.

The Baganda at Home. With One Hundred Pictures of Life and Work in Uganda. By C. W. Hattersley, Secretary, Board of Education, C.M.S. **58**
Uganda. Author of *Uganda by Pen and Camera*. London: Religious Tract Society, 1908. Pp. xvi + 227. 22 x 14 cm. Price 5s.

This exceedingly well-illustrated book is well calculated to serve the purpose for which it is apparently written, namely, to interest the public at large in the mission work which is being so successfully carried on by the Church Missionary Society in Uganda and the adjacent tribes. Mr. Hattersley, the author, is secretary to the Board of Education, and seems to have given some attention to the natives, their habits and customs.

The results of his observations are set down with clearness and are likely to be very useful to the Cook's tourists who are now in increasing numbers visiting Uganda, as well as traders and officials. The book will also prove of great use in showing the influence which a mission may have in a land where the people are so amenable to instruction as the Baganda are.

Looking at the book from the anthropological point of view, although there is nothing very new to be found in its pages, yet we can glean many interesting details as to the people, their customs and mental characteristics, and we can see how they have reacted to the foreign influences which have been at work in the country during the past quarter of a century.

The men seem to progress with much greater rapidity than the women, the latter not taking so very kindly to the new order of things. The advent, however, of lady missionaries is making a gradual change in this as well as the medical work in the excellent hospital administered by the mission.

Apart from the natural aptitude of the Baganda, the mission must have great credit for the way in which they have taught the people. They seem to be working on the very satisfactory and commonsense lines of not aiming at giving the people a veneer of civilisation but in trying to develop an educated native race.

The High School for the chiefs' sons is admirably conceived and is well carried out, as we are convinced on reading the details of the instruction which is given.

The numerous illustrations are well reproduced and are most useful. A quotation will indicate the style of the book :—

"Uganda is a country the habits of which, when compared with England, appear to be entirely reversed. The men do the sewing and washing, they visit the friends of the family, they buy their wives, or in other words find the dowry, the bridegroom must in all cases provide the wedding presents and the feast. On the other hand, a woman may propose marriage to the man of her choice, and, indeed, goes off on a tour of exploration for that purpose even though the year be not leap-year. This is, however, quite reasonable, for she engages to provide food for the household, collect the firewood, carry the water, and do all the cultivating besides attending to the duties of motherhood.

"The conditions of life for babies are not at all comfortable under such an arrangement, as one can readily see on any journey by noticing the number of babies lying each on a little scrap of bark-cloth with a banana leaf as a tent to protect them from the sun's rays, whilst their mothers are cultivating. The women look after the tobacco supply, and smoke it, too, and they make the beer for the family unless it is wanted in large quantities, when the men's help is called in. The women weave baskets and mats, though in this department a few good-natured men occasionally help."

The book shows clearly the need of true anthropological study in these regions before it is too late. Even now, to one who knew the country thirty years ago, the account of many of the habits and customs of the people and their religious beliefs looks a faded picture, so rapidly do natives change when brought into touch with strenuous civilisation.

The only thing we regret in the book is several needless remarks upon a form of religion the author does not happen to like. The country has suffered too much from the disharmony of so-called Christians; surely it is time for different denominations to join hands in brotherhood.

R. W. F.

Austria.

Frizzi.

Ein Beitrag zur Anthropologie des "Homo Alpinus Tirolensis." Von Dr. Ernst Frizzi (Sonderabdruck aus Band XXXIX der Mitt. der Anthropol. Ges. in Wien). Vienna, 1909. Pp. 65. 31 × 21 cm. 59

Thirty or forty years ago craniometry occupied a larger province in the anthropological realm than it does now. But it is not so much thrust into a corner as it was when the Cretan discoveries began, when I recollect saying, at the Liverpool meeting of the British Association, that I had never once heard in the section that blessed word brachycephalic. In our own country Thomson and Duckworth, on the continent Sergi, Ruggieri, Pittard, and many others, besides some of the veterans of the past generation, continue to labour in this field.

Dr. Frizzi's last paper shows him inferior to none as a persevering and accurate worker, who shrinks from no amount of wearisome detail in his labours. One's first impression is that he has left little or no room for any subsequent investigation of the Tyrolese, so far as their skulls and skeletons are concerned. Such is not the case, of course; there is plenty for future students of anthropology to do in the comparison of the different districts, not only in the two great divisions of German and Italian Tyrol, but in the several subdivisions of each. Frizzi has selected the village of Laas in the Vintshgau for especial study; and it is evident, or at least highly probable, that he has had to deal there with a population more tinctured with a

dolichocephalic northern strain than in sundry districts further north, and even in the south of Bavaria. Speaking generally, however, and having embraced in his own personal measurements as many as 1,064 crania from very many districts of Tyrol, he confirms and extends the observations of John Ranke, Holl, Toldt and Tappeiner, demonstrates the great resemblance of the prevailing type in the Tyrol to that in Switzerland and Upper Bavaria, and definitely assigns it to the "Alpine" race. Except in the case of Laas, he does not usually attempt to determine the sex of his crania, herein following John Ranke. Perhaps they are right in abstaining from guessing: one of the distinctions on which one relies as between the sexes in the Germanic races, to wit, the comparative verticality of the forehead and absence of glabella in the female, is by no means conspicuous in the Swiss and Tyrolese—where these characters are very common also in the male—whereas in Francothuringia Ranke notes the prominent glabella and receding forehead, as characters correlated with a reduction of the cranial capacity.

Frizzi demonstrates clearly enough the resemblance, the almost identity in racial characters, of the Tyrolese and the Bavarian mountaineers. The stature may be a little higher in the former. Frizzi puts it at 1,673 mm. in the living; but, on applying Manouvrier's rule to some skeletons, he got only 1,631 mm. in males and 1,512 mm. in females.

In colour he does not claim to be a practised observer, but he notes a huge proportion of green eyes, which Mr. John Gray or I would probably call medium or neutral. In the hair he finds, as Schimmer did, a very great difference between the German and Italian Tyrolese, the German being lighter in eye, and still more so in hair. The line of demarcation is almost as well marked as that of Vanderkindere between the Flemings and the Walloons, but it bulges northwards to include in the Italian area the rural parts of Bozen, where the German element is probably retreating before the Italian (*see* my map in *Colour and Race* and those of Schimmer). Frizzi carries out a careful comparison of the Tyrolese with Ranke's Upper Bavarians, and Wettstein's Disentis folk, a comparison extending to many minute details. He is cautious in coming to positive conclusions; but on the whole it may be said that he finds a common element prevailing among all these Alpine people, the brachycephalic and leptoprosopic, which is, perhaps, most pure in the Disentis series. Frizzi derives it from the Rhaeti, so far as his own province is concerned. There seem to be greater local differences in Tyrol than in Bavaria proper, as might be expected in a country of valleys separated by almost impassable mountain ranges. It would seem that some of the more secluded glens, or the heads of valleys, such as the Oetzthal, the Taufererthal, the Martelthal, the Münsterthal, retain a population more hyperbrachy than even that of the Vorderrhein valley, with mean indices over 85. On the other hand, the Zillertal, the Val Sugana east of Trent, and Laas in the Vintzgau, and some other places in less degree, are at most sub-brachycephalic, and would seem, either from the circumstances of their original conquest by the Germans or from what one can only call accidents, to have retained a notable proportion of the Marcomau or Swabian element. In this connection one may be forgiven if one recalls the fact of the persecution of the Zillertalers, and the expulsion of many of them from their native homes, on account of their steadfast adherence to the Protestant religion.

The low index (80) of the Valsugana folk may possibly result from the smallness of the number measured. The index for Fassathal, another Italian locality, is 84.5; yet there is a kind of likeness in other points. The modern Lombards have a high index; but their racial elements are not exactly the same as those of the Bavarians and Tyrolese. Frizzi measured the capacity in his Laas people with millet; the result was small—1,358 for men and 1,260 for women. This fact Frizzi himself ascribes to the method, but I think his personal equation may also have a little to do with it. Still,

his Laas folk must surely have smaller heads (with one extraordinary exception) than the Tyrolese in general. By Welcker's Table C the former should have a capacity of 1,344, the latter one of 1,462 ccm., agreeing fairly with Ranke's Upper Bavarians.

I have calculated the probable capacity of most of the divisions of Frizzi's Tyrolese, but the results I have obtained are obscured and rendered of smaller value by the unsolved question of sex. My own peripheral plan yields rather high figures as a rule—often over 1,500—but almost always between those gotten by the Manouvrier-Flower process for males and for females, and fairly comparable with Ranke's—if I read him rightly—as well as with Welcker's Table D, the circumferential one. Pearson's processes all give smaller results, as a rule—too small, as I believe. Considering the desirability of getting the best possible process for the estimation of capacity (for our best one, Manouvrier's, is nearly perfect only in his own practised hands), I may dwell a little on this point. Frizzi's circumference for 90 Innthal skulls, male and female, is 528.4; Ranke's for 100 from the same valley is 515; Frizzi measures as low down on the glabella as he can; Ranke, I suspect, over the opthryon. This would increase my estimate by about $2\frac{1}{2}$ per cent. Frizzi measures his Q arc from the top of the earhole over the bregma; and his heights are bregmatic, which Pearson's are not. How that would affect Pearson's results I am not sure.

More important, probably, is the question of sex-relations, of the probable proportion of male to female capacity in skulls of the same measurement. Now Manouvrier says that in such a case the female skull will have the larger capacity, the mean difference averaging in different races from about 2 to nearly 5 per cent., and on the whole, as I read, about 3. Mme. Pelletier makes it 3, i.e., she divides the product of length, breadth, and ear-height by 202 for males and 196 for females to get the respective capacities. But Professor Pearson and Dr. Lee, on the other hand, have constructed formulæ which in most cases, from identical measurements, would bring out a smaller capacity for the female. Professor Pearson has blamed me because, having little experience in female skulls, I have not devised any special plan for measuring their capacity, but simply used my masculine one. Ranke's and Frizzi's labours yield fair opportunities for testing whether Athanasius is in the right as against the anthropometric world, which follows Manouvrier.

The following are Ranke's figures, arranged in the simplest form:—

MALE.			FEMALE.		
No. of Cases.	Average Circumference.	Average Capacity.	No.	Average Circumference.	Average Capacity.
6	519.6	1,321	21	511	1,374
11	519	1,371	12	518	1,431
26	526	1,470	5	521	1,467
9	530	1,508	6	528	1,520

Four male and four female skulls from Laas, measured and gauged by Dr. Frizzi, are available, not counting outside sizes:—

MALE.			FEMALE.		
Modulus.	Circumference.	Capacity.	Modulus.	Circumference.	Capacity.
417	480	1,080	438	483	1,320
436	496	1,110	430	484	1,220
444	497	1,200	426	488	1,160
438	498	1,175	433	490	1,200
Averages, 434	493	1,141	432	486	1,225

Here the females average 84 c.cms. of capacity over males of even larger circumference and modulus. The greater thickness so often found in the male cranium, the stronger muscular impressions, the less verticality of the forehead, would all lead one to expect some such difference.

Yet Pearson's multitude of formulæ, so far as I have examined them, almost always reverse this difference, so that with the same dimensions they assign to a feminine skull a *smaller* capacity, sometimes very much smaller; the degree of diminution varying prodigiously in his several formulæ. Thus, in the neighbourhood of Innsbruck I find, on applying his 12-13, or basi-bregmatic scheme, to Frizzi's figures (the same figures), a difference so great as between 1,473 and 1,369, according to whether we suppose the same skulls to be male or female. Manouvrier's estimate (supposing them female), even when reduced to Flower's standard, would be 1,597, or more than 200 above Pearson's. The latter's German formula, No. 9, is much better, the difference of male and female coming out as that between 1,472 and 1,462; but still it also is on the wrong side.

J. BEDDOE.

Prehistory.

Hewitt.

Primitive Traditional History. By J. F. Hewitt. James Parker, 1907. **60**
2 vols. Pp. 977, 4 plates.

This work deserves more attention than it seems as yet to have received. Whatever may be said about the theories of the author, his extensive acquaintance with present primitive life in India and with ancient Indian literature, and his wide reading otherwise, must render the forty-five pages of index of these volumes a valuable mass of references to such subjects. It is difficult to grasp the matter presented, owing to the great mixture of statements which are not essential to the case in question; and which, though illustrative, are yet irrelevant to direct proof which the reader may seek. If the work were a tenth of the length it would probably succeed far better in gaining acceptance of its main propositions. Here we will try to give such an outline as will show other students how far this work may bear on their researches.

The essential basis seems highly probable. Many different kalendars are found to have been used by different peoples; and as the kalendar is not changed without a great upheaval of civilisation and habit, so each kalendar may be taken as the most obvious brand of one type of civilisation, and by its transference it gives good evidence of a mixture of race. Moreover, each kalendar by the number of days, weeks, and months which it employs, stamps the use of these numbers on the religion and social life. And the observation of the stars for the purposes of the kalendar induces a mythology and cosmogony which is also characteristic of each civilisation. Our own observation of historical instances certainly bears out these principles. In Indian ritual-literature there appears to be a great mass of references to numbers connected with the kalendar; but it would need a first-hand knowledge to criticise the applications of the Rigveda and other documents to this subject. It is regrettable that on the Egyptian side I certainly could not bear out the statements and their applications in many parts. But the Indian material is very different, and is known by the author much better than the Egyptian; moreover, there are express documentary statements of the ritual adoption of numbers of objects and of measures as referring to kalendar numbers, and the superposition of one ritual upon another in historical order seems well attested. The author's position is summarised thus:—

"In short, the whole ritual of the Indian Church as expounded in the Rigveda and the Brāhmana ritualistic manuals was that of the worship of the gods who measure time, and it was the successive phases assumed by the forms of worship altered with

Days, Weeks, Months, Year. Origin.	Astrology.	Sacred Animals.	Sacred Trees.	Sacrifices and Symbols.	Social.	Drink.	Products.	Date B.C.
5 36 2 = 360 Indian monsoons.	Pleiades; polar apex turning stars.	Ape -	—	Firstfruits, rice -	Exogamous matri- archal.	Sap, soma	—	21,000 — 19,000
5 6 12 = 360 South China.	Solstices; mother sun.	Sun hen jun- gle fowl.	—	Firstfruits -	Matriarchal	Sap -	—	—
29 12 = 348 +4 = 12 Finn-Scandia.	Orion-deer unites with Althebar- doe; Great Bear bow and arrow; Pole star goat.	Reindeer sun god slain at old year.	Cypress	Blood sacrifices	Patriarchal?	—	Stone pil- lars and circles.	16,000
6 5 12 = 360 Phrygia.	Great Bear, 7 pigs and sow.	Pig, Eel, Snake, Phallus.	Oak, Pine-cone.	Dog and trident symbols.	Patriarchal -	Milk -	Neolithic -	—
7 4 13 = 364 9 3 12 = 360 lunar days. Finn and Tatar.	Great Bear, the bed or wagon of year- god.	Bee, Blue jay	Fig, Nut, or Almond; lotus mother- plant.	Dog, Bull, Sheep, Man.	Strongly patriarchal	Mead -	Neolithic - Copper? -	14,000 — 12,600
11 3 11 = 363 Northern.	Great Bear, the reins of Sun-horse or Auriga chariot.	Horse head, a charm.	Ash or yggdrasil.	Horse, black; Shoo- of wren; Hair ceremonial.	Burning of dead; bhanga used.	Milk -	Bronze -	11,000
8 3 15 = 360 Gotho-Finnic.	Great Bear, the thigh; Sun wor- ship.	—	Date palm, Pomegranate, Barley.	Child sacrifice; Mead, Milk, Ghee, Bull.	Village unions of families as govern- ments.	Barley beer.	—	10,700
7 3 17 = 357 +1 = 364	Chariot race of sun- god.	—	Olive	White horse or goat, Sheep, Ghee.	Burning of dead	Wine -	Solomon's seal.	—
6 4 6 3 = 360 India?	—	—	—	Horse -	Endogamy, indivi- dualism, trading system, federation.	—	—	6,700
10 3 12 = 360 Cello-Gothic, Aryan	—	—	—	—	Widespread con- quests.	—	Zodiac -	4,500
19 19 = 361 Babyl, Persia.	—	—	—	—	—	—	—	Modern

the changing computations of the year which distinguished the epochs of national chronology, and these changes were, as we have seen, all connected with the advent of new immigrant races who became in course of time united in one composite nationality with those who had preceded them" (p. 959).

To enter on detail here is impossible, or even to give any idea of the enormous mass of suggested connections with the beliefs of most of Asia and Europe, and parts of Africa, America, and Australia. But a tabular synopsis of the principal ideas connected with each kalendar will enable readers to grasp the outline, and to see how far other known facts will corroborate or contradict it. If only a tenth of the statements made in the work prove sound there is enough to be of prime value for a systematic treatment of the prehistoric ages.

Referring to the tabular view, we may note that the earliest year is of five-day weeks, thirty-six of which occupy each of the monsoon seasons. Next lunar influence appears in the making twelve months of such weeks. Then a lunar month of twenty-nine days is used separately from the week, and is levelled up with the year by a twelve days' festival at the year's end, found from northern Europe to India. Five weeks of six days in the month is then adopted as an approximate month. The week of seven days, four in the month, and thirteen months of the year is the next, along with a curious form of reckoning in lunar days, nine of which form a week, and twelve months of three weeks make up a year. The strange week of eleven days and year of eleven months seems to break away altogether from lunations, as also do the years of fifteen and of seventeen months. The month of four five-day weeks, or twenty days, repeated six times in each of the three seasons scarcely touches the lunations. But the ten-day week, three of which made the month, is about as near as our present kalendar. The Babi system is a curiosity as showing an entirely new departure; nineteen days to the month, nineteen months to the year, and nineteen years to the lunar cycle has an attractive uniformity. We may add another form of year, that of the early Arab, which was of ten lunations, ignoring the solar year. This is shown by there being only ten names of months, and two of them duplicated to make up the solar twelve months. The adherence to lunar months still, and shift of the whole of the months every thirty-three years, shows how entirely lunar is the Arab system.

The other columns scarcely need any explanation, though a long account would be needed to show the evidence for each statement. The last column contains the dates suggested by the connections of the constellations with the seasons. Such dates may be possible for the rise of the primitive ideas, but cannot be linked with the whole of each system. For instance, bronze was probably unknown till 1500 or 2000 B.C., and so must be a much later incident in the system of 11000 B.C. Even copper cannot be dated earlier than 7000 or 8000 B.C. The evidence for these dates is intricate, and not at all inevitable; but yet they may well be true of the rise of the astrology with which they are stated to be connected.

The work deserves to be analysed by several specialists, and if each would say how much is probable and possible we might register a considerable advance in our ideas of prehistoric ages.

W. M. FLINDERS PETRIE.

ANTHROPOLOGICAL NOTE.

We regret to hear of the sudden death, at the age of seventy years, of Dr. J. D. E. Schmeltz, who had been director of the Royal Ethnographical Museum at Leyden since 1897, and was editor of the *Internationale Archiv für Ethnographie*. He was elected an Honorary Fellow of the Institute in 1892.

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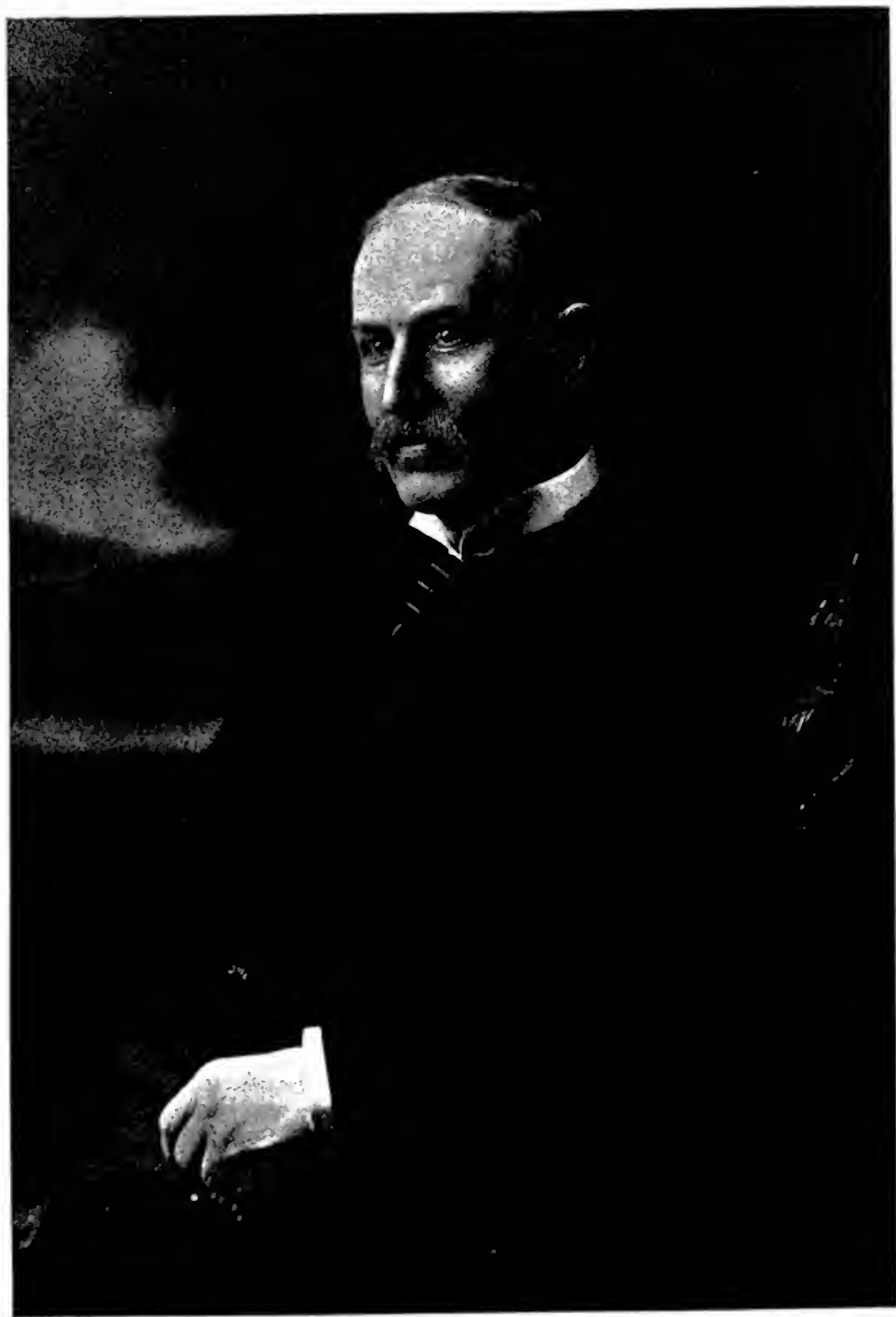


Photo: Horsburgh, Edinburgh.

DANIEL JOHN CUNNINGHAM.

ORIGINAL ARTICLES.

Obituary.

With Plate G.

Cunningham.

Daniel John Cunningham. Born April 15th, 1850; died June 23rd, 1909. By Professor Arthur Thomson. **62**

By the death of Professor D. J. Cunningham of the University of Edinburgh, at the age of fifty-nine, not only has the world of science lost a distinguished ornament, but many of us a valued friend. A son of the manse, he was born at Crieff, where his father, afterwards the distinguished Principal of St. Andrew's University, was parish minister. In the academy school of the Perthshire town he received his early education, subsequently passing to the University of Edinburgh, where he graduated with honours in medicine in the year 1874. During his undergraduate career young Cunningham was noted for his brilliant talents, and in most, if not all, of his classes obtained the highest distinctions. In 1876 he took his doctor's degree, being awarded a gold medal for the excellence of his thesis. It was then that he entered on the career which he has pursued with such distinction. Appointed a demonstrator on the anatomical staff of the University under Professor W. Turner, he threw himself into his work with an energy which was amazing. In spite of the arduous nature of his teaching duties he yet found time to engage in laborious research, and the early results of his tireless industry are to be found in the reports of the "Challenger" expedition, to which he contributed the article dealing with the Marsupialia. In those days Cunningham soon gave evidence of marked ability as a teacher: possessed of a clear and lucid style, he reduced the most complex subjects to terms so simple as that all might understand. He had the knack of enlisting the sympathy of his audience and so keeping their attention fixed. Frequently demonstrating, as he had to do, late in the afternoon, he succeeded effectually in maintaining the interest of his class. Seldom, indeed, did the worn-out student succumb to the influence of slumber when Cunningham was lecturing.

As the results of his accomplishment as a teacher, and his recognised ability as an anatomist, he quickly attained promotion. In 1882 he was appointed Professor of Anatomy in the Royal College of Surgeons of Ireland, a Chair which he occupied but for a year, being translated to the corresponding Chair in Trinity College, Dublin, on the resignation of Professor Alex. Macalister, then called to Cambridge. With what distinction and success Professor Cunningham held that office for a period of twenty years those conversant with medical education in Ireland can best testify. But, in 1903, the Chair of Anatomy in Edinburgh becoming vacant through the appointment of Sir William Turner to the Principalship of the University, Professor Cunningham, ever loyal to his Alma Mater, accepted the invitation to succeed to the illustrious line of anatomists who have adorned that University. At what personal sacrifice he entered on the duties of his new office those alone who knew him intimately can appreciate. It was wholly from a sense of duty to the University he loved so well that he undertook the responsibilities of so arduous a position. He had been looking forward to the time when, possibly, he might be able to take things a little more easily, and so find opportunities for the furtherance of those researches to which hitherto he had had so little time to devote. But these considerations never weighed with him; he went where duty called—too soon, alas! to be snatched from us in his prime just when probabilities of other and higher distinctions seemed well within his grasp.

It is outside the scope of this article to deal with his work as an anatomist, it is rather with the anthropological aspects of his work that we are most concerned. Among the memoirs which he wrote, none, perhaps, has attained wider recognition than that produced on "The Lumbar Curve in Man and Apes," published by the

Royal Irish Academy in 1886. It may be said to be the classic on the subject. Therein he submitted the data obtained from the measurement of the vertebrae of the columns of men and apes to a searching analysis: he proved how erroneous conclusions drawn from the macerated skeleton might be, because of the necessary neglect of the intervertebral discs in the constitution of the curves. Whereas the inspection of the macerated vertebral column of an Australian might lead to the supposition that a characteristic of that race was an apparent absence of the lumbar curve, he clearly demonstrated, by the examination of recent specimens with the discs still in position, that their vertebral columns displayed as pronounced curves as those exhibited by the higher races. He thus enforced the necessity of considering the close correlation which exists between structure and function in the vertebral columns, and was able in consequence to guard against the error of supposing that the osseous structure of the column in the lower races was a sign of inferiority; whereas, in fact, it was only proof of their greater range of mobility.

His studies in relation to giantism as embodied in his memoir on "Cornelius "Magrath, the Irish Giant" (1891), were an important addition to our knowledge of the subject. Of not less importance, in regard to the question of head form, was his paper on the "Brain and Head of the Microcephalic Idiot," published in the transactions of the Royal Irish Academy in 1895. Nor must we omit to mention the illuminating address delivered on the occasion of the Huxley memorial lecture in 1902, when he expounded in detail the anatomical evidence bearing on the subject of "Right-handedness and Left-brainedness." His address, as President of the Royal Anthropological Institute in 1908, dealt in a scholarly way with the influence exercised by the pioneers of physical anthropology in the eighteenth century, and provides in useful form an admirable record and criticism of the genius and labours of such men as Camper, White, Blumenbach, Pritchard, and Lawrence. Not less interesting, though possibly not so well known, was his address to the graduates in medicine of the University of Edinburgh in 1904 on "The Evolution of the Graduation Ceremony," wherein he treated of the symbolism and survivals retained in the various ceremonies adopted by the universities throughout the world.

Of other contributions to the literature of anthropology we may note his presidential address at the Anthropological Section of the British Association at Glasgow in 1901, his memoir in the transactions of the Royal Society of Edinburgh (1906) on "The Varying Forms of the Stomach in Man and the Anthropoid Ape," and his paper on the "Australian Forehead" in the collected essays presented to Professor E. B. Tylor on the occasion of his jubilee.

In other capacities Professor Cunningham's association with anthropology was intimate and most helpful. He maintained the high standard of teaching on the subject initiated by his predecessor, Sir W. Turner, in the University of Edinburgh, where physical anthropology is recognised as one of the subjects for the B.Sc. degree. Whilst his services as chairman of the Committee of the British Association charged with the duty of promoting the establishment of an anthropometric survey of the British Isles have been widely appreciated.

Of honours he received many. A Fellow of the Royal Society, he also acted as one of the secretaries of the Royal Society of Edinburgh. He was a D.C.L. of Oxford, an LL.D. of Glasgow and St. Andrews, and a D.M. and D.Sc. of Dublin. A past president of the Royal Anthropological Institute, he also served in a similar capacity in the Anatomical Society of Great Britain and Ireland. He rendered yeoman service to his country as one of the Commissioners appointed to inquire into the care of the sick and wounded during the South African War, and his services were retained by the War Office Committee to report on the physical standards for candidates for commissions and recruits in the army.

But no account of the man would be complete without a reference to those personal traits which endeared him to all who knew him. Gifted as he was, he was the most modest of men. To him no trouble was excessive, no responsibility too great. Everything he undertook was carried through with a deep sense of duty. Slipshod work was foreign to his nature; thoroughness and efficiency were his ideals. To those who differed from him on matters of policy he was always generous; to his colleagues and friends he was ever loyal and true. He lived a life without blemish, and his record may well serve as a bright example to those who have to follow.

ARTHUR THOMSON.

England: Pigmentation.

Freire-Marreco.

Notes on the Hair and Eye Colour of 591 Children of School Age in Surrey.* *By Barbara Freire-Marreco.*

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The observations on which this paper is based were made up as follows:—Chobham, National Schools, July 19, 1901; 54 boys, 30 girls, total 84. Horsell, National Schools, younger children, July 8, 1901; 54 boys, 21 girls, total 75. Westfield, Woking, Council Schools, July 23, 1901; 130 boys, 71 girls, total 201. Pyrford, Council Schools, July 24, 1901; 47 boys, 39 girls, total 86. Guildford, children in South Street, July 3, 1901; 36 girls. Bramley, Council Schools, September, 1901; 55 boys, 21 girls, total 76. Shamley Green, National Schools, September, 1901; 11 boys, 22 girls, total 33. Grand total: 351 boys; 240 girls.

Of the seven parishes in which observations have been recorded, Chobham, Horsell, Pyrford, and Westfield (Old Woking) are in the Bagshot-sand country. Chobham lies in the water-meadows of the Hale Bourne Brook, and runs up the slope to the north; Horsell, on a dry, sandy ridge, runs down to the Bourne Brook and westwards towards Bisley. Pyrford is on the extreme edge of the high ground overlooking the complicated waterways round Newark Priory; Woking† lies in the water-meadows between the Hoe and the Wey, but the area served by Westfield School‡ extends



FIG. 1.—MAP OF DISTRICT.

* Submitted in compliance with Regulation 3 for the Diploma in Anthropology in the University of Oxford, June, 1903.

I take this opportunity of thanking Mr. Marsh and Mr. and Mrs. Saunders of Westfield, Mr. Stevens of Pyrford, Mr. and Mrs. Tidy of Horsell, and Mr. and Miss Wetton of Chobham Schools for their kind co-operation.

† Not Woking Junction, which is a modern settlement on the south edge of Horsell Moor.

‡ Viz., Woking village, Westfield, Kingfield, Sutton, Mayford; small numbers from Worplesdon, Sander's Lane, Kemish Ford, Smart's Heath, Pray Heath, Poyle Hill, Hook Heath, Egley Nurseries, Elm Bridge Green, Cross Lanes.

TABLE 1.

	LIGHT EYES.				MEDIUM EYES.				DARK EYES.				
	Red.	Fair.	Brown.	Dark.	Red.	Fair.	Brown.	Dark.	Red.	Fair.	Brown.	Dark.	
<i>Boys.</i>													
Chobham . . .	2 3·7	10 29·6	1 1·9	—	1 1·9	16 29·6	6 11·1	5 9·3	—	1 1·9	4 7·4	2 3·7	51
Horsell . . .	—	11 20·4	2 3·7	—	2 3·7	20 37·	4 7·4	—	—	5 9·3	8 14·8	2 3·7	54
Westfield . . .	—	7 5·4	—	—	4 3·1	34 20·4	38 29·5	12 9·3	—	7 5·4	17 13·2	11 8·7	120
Pyrford . . .	—	7 14·9	5	—	—	14 29·3	9 19·1	5 10·6	—	1 2·1	6 12·8	—	47
Guildford . . .	—	—	—	—	—	—	—	—	—	—	—	—	—
Bramley . . .	—	10 15·2	1	—	1 1·8	16 29·1	15 27·3	5 9·1	—	4 7·3	2 3·6	1 1·8	65
Shamley Green . . .	—	—	—	—	—	4 35·4	2 18·2	3 27·3	—	—	1 9·1	1 9·1	11
Total Boys . . .	2 ·6	61 14·5	9 2·6	—	8 2·3	104 29·6	74 21·1	30 8·5	—	18 5·1	38 10·8	17 4·5	351
<i>Girls.</i>													
Chobham . . .	—	—	6 20·	—	—	8 28·7	7 23·3	2 6·7	—	1 3·4	5 16·7	1 3·4	20
Horsell . . .	—	3 14·3	1 4·8	—	—	6 28·6	7 33·3	—	—	2 9·6	2 9·6	—	21
Westfield . . .	—	3 4·2	1 1·4	—	1 1·4	27 38·	18 25·4	7 9·9	1 1·4	4 5·6	7 9·9	2 2·8	71
Pyrford . . .	—	3 7·7	1 2·6	2 5·1	—	8 20·5	14 35·9	5 12·5	—	1 2·6	2 5·1	2 7·7	29
Guildford . . .	—	8 14·	2 5·6	—	1 2·8	13 35·1	2 5·6	—	—	5 14·	8 22·4	—	36
Bramley . . .	—	—	—	—	1 4·8	7 33·3	1 35·1	2 14·3	—	1 4·8	—	1 4·8	21
Shamley Green . . .	—	3 13·5	1 4·5	—	—	9 40·5	2 9·	2 9·	—	1 4·5	3 13·5	1 4·5	22
Total Girls . . .	—	17 7·1	12 5·	2 ·8	3 1·2	73 35·5	38 24·2	19 7·9	1 ·4	15 6·25	27 11·25	8 3·3	240
Total for both sexes . . .	2 ·3	63 11·5	21 3·6	2 ·3	11 1·8	183 30·8	132 29·3	49 8·3	1 ·2	33 5·6	65 11·	25 4·2	591

above the 100 feet line to the north and west of the Hoe. Guildford is on the chalk, where the Wey cuts through between the Hog's Back and Merrow Downs; Bramley and Shamley Green are on the heather hills of the Lower Greensand; Bramley lies between the hill and the water; while Shamley Green is on a hill-promontory.

Only Guildford can be called a town; Shamley Green is a very small hamlet. The order of population in 1901 was, approximately:—Guildford, Westfield, Horsell, Bramley, Chobham, Pyrford, Shamley Green. This is an attempt to estimate the working-class population, from which the children in the elementary schools are drawn.

It does not seem as if there was much relation between the geological situation of these parishes and the statistics of hair and eye colour obtained; on the other hand, it will be seen by Table 3 (Curves of Hair and Eye Colour) and the seriations in Table 6 that the geographical situation is not without a bearing on the statistics:—the two Bourne Brook parishes, Horsell and Chobham, fall together, and so do the two Hoe and Wey parishes, Pyrford and Westfield (Woking). It should be noted that until modern times there was no made road across the heaths from Horsell to Pyrford, whereas there was fairly easy communication along the meadows between Pyrford and Westfield.

I have compared the surnames of the children attending the schools in July, 1901; the results are inconclusive. Horsell and Chobham have fourteen surnames in common, Westfield and Chobham fifteen, Horsell and Westfield seventeen; Pyrford has nine surnames in common with Westfield, six with Horsell, five with Chobham. It is unfortunate that the Horsell subjects are not quite comparable in age with the rest, falling mostly within the lower standards of the school; had the whole school been included it is possible that the excess of fair hair would have been corrected, and Horsell would have been brought nearer to Westfield. The increase and change of population since 1901 make it impossible to repair this omission.

The observations were recorded, in the manner recommended by Dr. John Beddoe,* on a card ruled into three divisions for eye-colour and subdivided into columns for the five colours of hair; in these the headings R, F, B stand for red, fair, and brown hair

LIGHT.					MEDIUM.					DARK.					
R.	F.	B.	D.	N.	R.	F.	B.	D.	N.	R.	F.	B.	D.	N.	
—	—	—	—	—	—	1 1	1	1	—	—	1 1	1	1 1	—	Boys. 19
—	—	—	—	—	—	1 1	—	1	—	—	1	—	—	—	
—	—	—	—	—	—	1 1	1	—	—	—	1	1 1	—	—	Girls. 10
—	—	—	—	—	—	1 1	—	—	—	—	1	—	—	—	
—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	
Westfield Infants, 3-5, 22nd July, 1901															23

respectively; D stands for dark brown and nearly black hair; N (niger) is reserved for hair which looks absolutely black in all lights. Of this last no example was recorded. Dr. Beddoe includes under niger also "the very intense brown which occurs in people who in childhood have had dark brown (or in some cases deep red) hair, but which in the adult cannot be distinguished from coal-black except in a good light." The narrower limit assigned to niger in these observations must be taken into account in considering the Index of Nigrescence, for which Dr. Beddoe's formula is $D + 2 N - R - F$.

* Beddoe, *Races of Britain*, 1885.

To the division of "light eyes" are assigned blue, light blue-grey, and pale grey; to the "medium" class dark bluish-grey, dark grey, hazel, hazel-grey, and bright light brown; to the "dark" black, dark brown, and very dark grey indeed.

TABLE 2.

	LIGHT EYES.				MEDIUM EYES.				DARK EYES.				
	Red.	Fair.	Brown.	Dark.	Red.	Fair.	Brown.	Dark.	Red.	Fair.	Brown.	Dark.	
Chobham	2 2·4	16 19·	7 8·3	—	1 1·2	24 28·6	13 15·2	7 8·3	—	2 2·4	9 10·7	3 3·6	84
Horsell	—	14 18·7	3 4·	—	2 2·7	26 34·7	11 14·7	—	—	7 9·3	10 13·3	2 2·7	75
Westfield	—	10 5·	1 1·5	—	3 2·5	61 30·4	56 27·8	19 9·6	1 1·5	11 5·5	24 11·9	13 6·5	201
Pyrford	—	10 11·6	6 7·	2 2·3	—	22 25·6	23 26·7	10 11·6	—	2 2·3	8 9·3	3 3·5	86
Guildford	—	5 13·9	2 5·5	—	1 2·8	13 36·1	3 5·5	—	—	5 13·9	8 22·2	—	36
Bramley	—	10 13·2	1 1·3	—	2 2·6	23 30·3	23 30·3	8 10·6	—	5 6·6	2 2·6	2 2·6	76
Shamley Green	—	3 9·1	1 3·	—	—	13 39·1	4 12·1	5 15·2	—	1 3·	4 12·1	2 6·	33
	2	68	21	2	11	182	182	40	1	33	65	26	
		93				374				121			

At Westfield, where the medium eyes were 70·1 per cent. of the whole, they were almost all dark blue-grey; the few exceptions were bright chestnut brown. There were four or five Welsh families in the place, stranded there by the failure of the Owen Stone Works; with the assistance of the schoolmistress these have been excluded, as well as a few gypsies and one London child.

At Horsell the characteristic medium eye was bright light brown.

TABLE 3.—COLOUR OF HAIR AND EYES, GROUPED ACCORDING TO BEDDOE'S CLASSIFICATION.

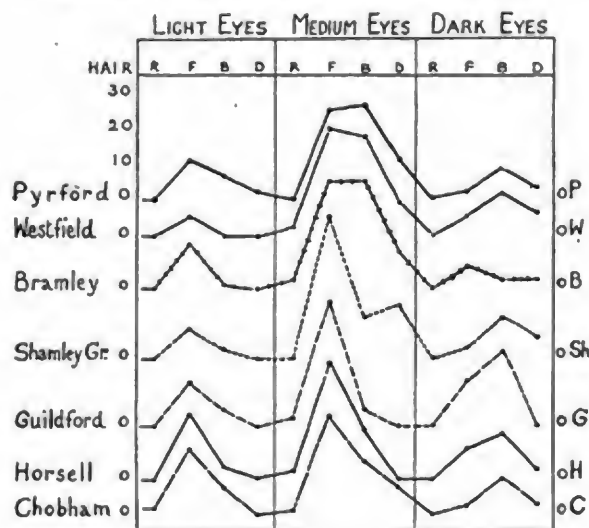


Table 1 gives the observations for the seven localities divided according to sex and Table 2 combines them.

The outstanding feature of the record is the predominance of medium eyes, 65 per cent. for all seven places, rising to 73·7 per cent. at Bramley, and over 50 per cent. everywhere except at Guildford. Fair hair also predominates largely, 47·9 per cent. for all the localities, over 50 per cent. except at Westfield and Pyrford. Brown hair is a good second, 36·9 per cent., over 27 per cent. everywhere, 40 and 43 per cent. at Westfield and Pyrford (see Tables 4 and 5). The percentage of red hair, 3·6, is rather high for the South of England.*

Dr. Beddoe's method of expressing the result of such observations is to obtain an "Index of Nigrescence" for the hair colours by the formula:—Dark + 2 Niger — Red — Fair = Index. This index "is generally positive in England and Scotland, and almost always in Ireland."* The result of applying this method to the present statistics is shown in Table 6, column A. For the eye-colour Dr. Beddoe uses the formula:—

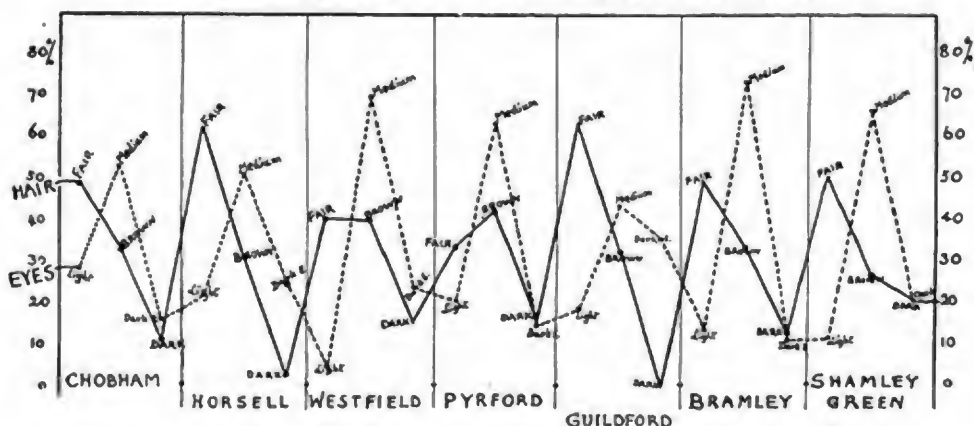
* Beddoe, *Journ. Roy. Anthr. Inst.*, XXXVIII, p. 215.

Dark — Light = Index ; the result for these statistics is shown in column B. Medium eyes and brown hair are neglected.

TABLE 4.—PERCENTAGES OF EYE AND HAIR COLOUR.

—	Chobham.	Horsell.	Westfield.	Pyrford.	Guildford.	Bramley.	Shamley Green.	All Localities.
Light Eyes - -	29.8	22.7	5.5	20.9	19.4	14.5	12.1	15.7
Medium Eyes - -	53.6	53.	70.1	63.9	44.4	73.7	66.7	63.
Dark Eyes - -	16.7	25.3	24.4	15.1	36.1	11.8	21.2	21.
Red Hair - -	3.6	2.7	3.	—	2.8	2.6	—	2.4
Fair Hair - -	50.	62.7	40.9	39.5	63.9	50.	51.5	47.9
Brown Hair - -	34.5	32.	40.3	43.	23.2	34.2	27.3	36.9
Dark Hair - -	11.9	2.7	15.9	17.4	—	13.2	21.2	12.85

TABLE 5.—PREDOMINANCE OF FAIR HAIR AND MEDIUM EYES.



Collignon's method is different ; he reduces all the figures to percentages, and for any district he adds the light eyes to the light hair, and the dark eyes to the dark hair, dividing each total by two ; and he constructs maps to show the excess of one total over the other. Here again medium eyes and brown hair are neglected.

TABLE 6.—LOCALITIES seriated according to (A) Beddoe's Index of Nigrescence for Hair ; (B) Beddoe's Index for Eye Colour ; (C) Collignon's Index of Excess of Dark over Light.

—	A. Index of Nigrescence for Hair Colour.			B. Index of Eye Colour.			C. Excess of Dark over Light.			—
Dark.	Pyrford - -	- 22.1	Westfield - -	18.9	Westfield - -	- 4.4	Dark.			
↓	Westfield - -	- 27.9	Guildford - -	16.7	Shamley Green - -	- 10.65	↓			
⋮	Shamley Green - -	- 33.3	Shamley Green - -	9.	Pyrford - -	- 13.95	⋮			
⋮	Bramley - -	- 39.5	Horsell - -	- 2.6	Bramley - -	- 21.15	⋮			
⋮	Chobham - -	- 41.7	Bramley - -	- 2.7	Guildford - -	- 25.	⋮			
⋮	Horsell - -	- 62.7	Pyrford - -	- 5.8	Chobham - -	- 27.85	⋮			
↓	Guildford - -	- 66.7	Chobham - -	- 13.	Horsell - -	- 30.05	↓			
Light.							Light.			
	Average - 41.9 Median - 39.5			Average 3.7 Median 2.6			Average - 18.9 Median - 21.15			

The results of this method are shown in Table 6, column C. The seriations by Beddoe's Index of Nigrescence for the hair and by Collignon's method agree pretty

closely ; in each case Branley is the median, with Pyrford, Westfield, and Shamley Green above, and Guildford, Chobham, and Horsell below. The range above the median is much the same :—17·4 in A, 16·8 in B. The difference of range below the median, 27·2 for the Index of Nigrescence in which hair alone is reckoned, and 8·8 for the Excess of Dark over Light which combines hair and eye colour, is explained by the considerable proportion of dark eyes at Guildford (36·1) and Horsell (25·3).

The figures of Table 6 are somewhat surprising. While Dr. Beddow's Index of Nigrescence for hair is generally positive in England and Scotland, and Surrey as a whole is classed in his maps in the divisions of 0—5 for hair and 33—39 for eye-colour, the average for these seven places is —41·9 for hair, and +3·7 for eyes. (Beddow's *Compound Index* (2 × index of hair + index of eyes) gives practically the same result, since the hair factor predominates :—Westfield —36·9, Pyrford —50, Shamley Green —57·6, Branley —81·7, Chobham —96·4, Guildford —116·7, Horsell —122·8 ; average —78·9.) This is to make out that these Surrey parishes are four times as fair as the fairest parts of Scotland !

The explanation seems to be that neither Beddow's method nor Collignon's gives

TABLE 7.—STATISTICS OF WESTFIELD AND PYRFORD, grouped according to Age.

Ages.	LIGHT EYES.				MEDIUM EYES.				DARK EYES.				Total.
	R.	F.	B.	D.	R.	F.	B.	D.	R.	F.	B.	D.	
WESTFIELD.													
Boys.													
3-5	—	—	—	—	—	4	1	2	—	3	1	2	13
5-9	—	2	—	—	1	19	7	3	—	3	9	5	49
9-11	—	4	—	—	2	3	16	1	—	1	4	1	32
11-14	—	1	—	—	1	8	14	6	—	—	3	3	36
	—	7	—	—	4	34	38	12	—	7	17	11	130
Girls.													
3-5	—	—	—	—	—	5	1	—	—	2	2	—	10
5-9	—	1	—	—	1	13	8	6	1	2	2	2	36
9-11	—	1	—	—	—	4	1	1	—	—	1	—	8
11-14	—	1	1	—	—	5	8	—	—	—	2	—	17
	—	3	1	—	1	27	18	7	1	4	7	2	71
PYRFORD.													
Boys.													
2-5	—	—	—	—	—	6	1	—	—	—	—	—	7
5-9	—	5	4	—	—	1	2	2	—	—	1	—	15
8-10	—	2	1	—	—	5	4	1	—	1	3	—	19
11-14	—	—	—	—	—	2	2	2	—	—	—	—	6
	—	7	5	—	—	14	9	5	—	1	6	—	47
Girls.													
3-5	—	—	—	—	—	4	1	2	—	—	1	1	9
5-9	—	1	—	1	—	3	4	2	—	1	—	—	13
8-10	—	2	1	—	—	—	4	1	—	—	—	2	10
11-14	—	—	—	1	—	1	5	—	—	—	1	—	8
	—	3	1	2	—	8	14	5	—	1	2	3	39

a satisfactory account of a district in which medium eyes predominate to the extent of 64·97, with 36·88 of brown hair. The failure of the method of Excess of Dark over Light appears from a more detailed investigation of the Westfield and Pyrford figures. In Table 7 these are given in age classes, 3—5, 5—9, (9—11, 8—10), 11—14, following the school classification in "standards."

TABLE 8.—PERCENTAGES OF HAIR AND EYE COLOUR FOR WESTFIELD AND PYRFORD, arranged according to Age, giving Collignon's Index of Excess of Dark over Light, with Medium Eyes and Brown Hair for comparison.

Ages.		Light Eyes + Light Hair.		Half Sum of Light.		Medium Eyes + Brown Hair.		Half Sum of Medium and Brown.		Dark Eyes + Dark Hair.		Half Sum of Dark.		Excess per Cent. of Dark over Light.	
WESTFIELD.															
3-5	—	68·7	34·35	56·5	21·7	31·9	43·5	17·4	34·5	—	3·8				
5-9	3·5	50·6	27·05	63·2	31·6	49·4	29·2	18·8	23·5	—	3·55				
9-11	12·5	37·5	25·	70·	55·	62·5	17·5	7·5	12·5	—	12·5				
11-14	6·7	30·2	17·95	79·2	59·9	65·05	15·1	17·	16·05	—	1·9				
PYRFORD.															
3-5	—	62·5	31·25	88·9	18·9	53·9	12·5	18·75	15·6	—	15·05				
5-9	41·7	40·7	40·7	51·9	40·7	46·3	7·4	18·5	12·05	—	27·				
8-10	20·7	44·8	32·75	51·7	51·7	51·7	27·6	13·8	50·7	—	12·				
11-14	7·1	21·4	14·25	85·7	57·1	71·4	7·1	21·4	14·25	—					

In Table 8 the figures are treated after Collignon's method to obtain an Index of Excess of Dark over Light by comparing half the sum of the dark hair and eyes with half the sum of the light hair and eyes, neglecting medium eyes and brown hair. The result is highly inconclusive. The light hair percentage does indeed diminish with age, quite regularly, considering the overlapping of the second and third age-grades at Pyrford—but the dark hair shows no proportionate increase. The excess-index rises, so to speak, for want of lightness and not from the presence of darkness. But when the brown hair statistics are added, it is obvious what becomes of the light hair; it simply darkens to brown,* in which category it escapes Beddoe's Index of Nigrescence and Collignon's Index of Excess.

TABLE 9.—SUMMARY OF HAIR AND EYE COLOUR OF 351 BOYS.

HAIR.	EYES.			Totals.	Percentage of Hair Colours.
	Light.	Medium.	Dark.		
Red - - -	2	8	—	10	2·85
Fair - - -	51	104	18	173	49·28
Brown - - -	9	74	28	121	34·49
Dark - - -	—	33	17	47	13·39
Niger - - -	—	—	—	—	—
Totals - - -	62	216	73	351	100·00
Percentage of Eye Colours -	17·66	61·54	20·8	100·00	—

* At Pyrford this works out very completely; light hair loses 41·1 between the youngest and oldest classes, and brown hair gains 38·2.

Beddoe's Index of Nigrescence ($D + 2N - R - F$) - - - 38.74Beddoe's Index of Eye Colour ($D - L$) - - - 3.14Collignon's Excess of Dark over Light $\left(\frac{Dh + De}{2} - \frac{Lh + Le}{2}\right)$ - - 17.8

Dark.		Light.		Half Sum of Eyes and Hair.		Excess of Dark over Light.
Eyes.	Hair.	Eyes.	Hair.	Light.	Dark.	
20.8	13.39	17.66	52.13	34.895	17.095	- 17.8

TABLE 10.—SUMMARY OF HAIR AND EYE COLOUR OF 240 GIRLS.

HAIR.	EYES.			Totals.	Percentage of Hair Colours.
	Light.	Medium.	Dark.		
Red - - - -	—	3	1	4	1.67
Fair - - - -	17	78	15	110	45.83
Brown - - - -	12	58	27	97	40.42
Dark - - - -	2	19	8	29	12.08
Niger - - - -	—	—	—	—	—
Totals - - - -	31	158	51	240	100.00
Percentage of Eye Colours -	12.92	65.83	21.25	100.00	—

Beddoe's Index of Nigrescence ($D + 2N - R - F$) - - - 35.42Beddoe's Index of Eye Colour ($D - L$) - - - 8.23Collignon's Excess of Dark over Light $\left(\frac{Dh + De}{2} - \frac{Lh + Le}{2}\right)$ - - 13.54

Dark.		Light.		Half Sum of Eyes and Hair.		Excess of Dark over Light.
Eyes.	Hair.	Eyes.	Hair.	Light.	Dark.	
21.25	12.08	12.92	47.5	30.21	16.67	- 13.54

TABLE 11.—SUMMARY OF HAIR AND EYE COLOUR OF 591 CHILDREN, both Sexes.

HAIR.	EYES.			Totals.	Percentage of Hair Colours.
	Light.	Medium.	Dark.		
Red - - - -	2	11	1	14	2.37
Fair - - - -	68	182	33	283	47.88
Brown - - - -	21	132	65	218	36.88
Dark - - - -	2	49	25	76	12.86
Niger - - - -	—	—	—	—	—
Totals - - - -	93	374	124	591	100.00
Percentage of Eye Colours -	15.74	63.28	20.98	100.00	—

Beddow's Index of Nigrescence ($D + 2N - R - F$) 37.39

Beddow's Index of Eye Colour ($D - L$) 5.24

Collignon's Excess of Dark over Light ($\frac{Dh + De}{2} - \frac{Lh + Le}{2}$) 16.075

Dark.		Light.		Half Sum of Eyes and Hair.		Excess of Dark over Light.
Eyes.	Hair.	Eyes.	Hair.	Light.	Dark.	
20.98	12.86	15.74	50.26	32.695	16.82	- 16.075

Tables 9, 10, and 11 show Beddow's Indices of Nigrescence and of Eye Colour, and Collignon's Index of Excess of Dark over Light, for the 351 boys, the 240 girls, and the 591 children without distinction of sex.

By all three indices the girls have a slight advantage in darkness:—3.32 by Beddow's index for the hair only, 5.09 by Beddow's index for the eyes, 4.26 by Collignon's index for the hair and eyes combined. As the difference lies mainly in the eye colour it is probably a genuine sex character, as it is not affected by questions of head-covering, hair-cutting, washing, and lubrication.

Lastly, is it possible to find a method of description which will give weight to all shades of hair and eye colour? Something may perhaps be done by assigning numerical values to combinations of hair and eye colour. I propose the following scale of "marks":—

Light eyes	- 1	Medium eyes	- 2	Dark eyes	- 3
Fair hair	- 1	Brown hair	- 2	Dark hair	- 3
Red hair, with light eyes	- 1	Red hair, with me- dium eyes	- 2		

Hence:—

Light eyes and red hair	-	-	-	-	-	2
Light eyes and fair hair	-	-	-	-	-	
Light eyes and brown hair	-	-	-	-	-	3
Medium eyes and fair hair	-	-	-	-	-	
Light eyes and dark hair	-	-	-	-	-	4
Medium eyes and red hair	-	-	-	-	-	
Medium eyes and brown hair	-	-	-	-	-	5
Dark eyes and fair hair	-	-	-	-	-	
Medium eyes and dark hair	-	-	-	-	-	6
Dark eyes and brown hair	-	-	-	-	-	
Dark eyes and red hair	-	-	-	-	-	
Dark eyes and dark hair	-	-	-	-	-	

Red hair is reckoned as "light" by both Beddow and Collignon; but is this satisfactory? In the present set of statistics it is found in combination with medium eyes thirteen times out of sixteen, i.e., 64.5 per cent. in excess of probability. With light eyes, on the contrary, it occurs only twice in sixteen times, a defect of 4.2 per cent. below probability. It looks as if there were some close connection between red hair and medium eyes.* On the whole, it seems safe to give it the value of "fair"-ness when it

* I am glad to find that this conjecture is confirmed by Mr. Gray. See Gray, *A New Instrument for Determining the Colour of the Hair* (MAN, 1908, 27). Cf. *Journ. Anthr. Inst.*, XXXVII, p. 382. Dubois, *On the Correlation of the Black and Orange-Coloured Pigments* (MAN, 1908, 46). Mr. Gray concludes from his analysis of the black and orange pigment in hair that red hair is the equivalent of dark brown.

is combined with light eyes, and of "medium"-ness, equal to brown, when it is found with medium or dark eyes.

I multiply the number of examples of each combination by the appropriate value number, and reduce the sum to a percentage. Thus, Chobham, eighty-four subjects—

$$\text{— Colour value} = (2 \times 2) + (16 \times 2) + (7 \times 3) + (1 \times 4) + (24 \times 3) + (13 \times 4) + (7 \times 5) + (2 \times 4) + (9 \times 5) + (3 \times 6) = 291 = 346 \cdot 4 \text{ per cent.}$$

A seriation by these statistics is given in Table 12; it agrees with the seriation by Collignon's Excess-of-Dark-over-Light Index in Table 6.

TABLE 12.—LOCALITIES, seriated according to Numerical Colour-Value of Hair and Eyes in Combination.

Westfield	-	-	-	-	394 ·
Shamley Green	-	-	-	-	278 · 8
Pyrford	-	-	-	-	372 · 1
Bramley	-	-	-	-	360 · 5
Guildford	-	-	-	-	352 · 8
Chobham	-	-	-	-	346 · 4
Horsell	-	-	-	-	342 · 7
Average	-	-	-	-	363 · 9
Median	-	-	-	-	360 · 5

It seems, then, that this method might be employed as a supplement to those of Beddoe and Collignon, and that in localities with a strong medium-and-brown element it might prove more descriptive than Beddoe's indices.

BARBARA FREIRE-MARRECO.

REVIEWS.

Ethics.

Westermarek.

The Origin and Development of the Moral Ideas. By Edward Westermarek, Ph.D. Vol. II. London: Macmillan & Co., 1908. Pp. xv + 852. 22 x 14 cm. **64**
Price 14s.

Dr. Westermarek is to be heartily congratulated on having brought to its full realisation a work designed on the most generous lines. The amount of erudition compressed into these two volumes is simply vast. Nor, if one's first impulse be to praise the author's immense industry, let this be taken as implying any tacit disparagement of his theoretical powers. Dr. Westermarek stands in the eyes of all anthropologists for a thoroughly original, that is to say independent, thinker, whose opinions rest on immense reading, joined to considerable experience of the more or less "primitive" conditions prevailing in the backward parts of Morocco. As a matter of fact, however, the main theoretical interest of his treatise is philosophical rather than anthropological. It is his view of the relation of our moral ideas to certain emotions, and of these again to various instinctive tendencies due to natural selection—a subject on which it is the special task of the philosopher to pronounce—that controls the course of the argument throughout. The anthropology is ancillary—that is to say, illustrative. To be sure, there is plenty of it; but, very wisely, the author for the most part steers clear of controversial matters of detail, and confines himself to statements which every anthropologist will be ready to endorse.

Most debatable, perhaps, from the strictly anthropological point of view is the view taken of the relation of ethics to religion. In regard to such a question, everything turns, of course, on the definition of religion that is adopted. Dr. Westermarck is perfectly clear on this head. "Religion," he says, "may be defined as a belief in and a regardful attitude towards a supernatural being on whom man feels himself dependent and to whose will he makes an appeal in his worship. Supernatural mechanical power, on the other hand, is applied in magic." So far his position essentially resembles that of Dr. Frazer. He differs from him, however, in regarding both religion and magic as alike concerned with the supernatural, that is, uncanny or mysterious, as distinguished from the natural or ordinary. Thus the force inherent in a tabooed object is, he argues supernatural, whilst, on the other hand, it is a mechanical energy or miasma, being supposed to discharge itself without the aid of any volitional activity. He goes on to admit that "magical and religious elements are often almost inseparably intermingled" in one and the same act."

Now so far I find myself in almost complete agreement with him. There can be no harm in distinguishing somewhat sharply between the attitude implying a quasi-mechanical object and the attitude implying a more or less personal, though not necessarily animistic in the restricted Tylorian sense of ghostlike, object. (I pass over the difficulty involved in holding that the latter attitude, to be religious, must be "regardful." Threatening a god is not magic. Though it involves constraint, the constraint is in no sense mechanical. Hence the antithesis between magic and religion, as interpreted by Dr. Westermarck, is not exhaustive, as it ought to be if the magico-religious and the supernatural are to be coextensive. But surely these must be made coextensive for the working purposes of anthropology. A threefold partition of the field would be impossible to carry out.) On the other hand, it must never be forgotten that there is really but one magico-religious object, namely, the supernatural, and that, though it may wear sometimes a mechanical and sometimes a volitional aspect, these two aspects are "often almost inseparably intermingled."

This being so, then, in Dr. Westermarck's opinion, does he not in practice well-nigh identify ethical supernaturalism with religion understood as a regardful attitude towards personal beings? What I mean to suggest is that an ethical magic, or, as I should prefer to put it, an ethical type of magico-religious cult in which the impersonal aspect of its object is relatively predominant, scarcely receives its due meed of attention at his hands. It might seem at first sight that our moral feelings were always directed towards personal beings. Yet surely at higher stages of culture an impersonal thing like "the moral law" may excite a truly ethical regard. But so likewise, amongst savages, the taboo-feeling may become moralised without appreciable aid from the notion of personal beings in the background. Indeed, it is in this feeling that Dr. Jevons discovers the prototype of the ethical idea *par excellence*—namely, the idea of duty.

Of course Dr. Westermarck is far too sound an anthropologist to have ignored this side of his subject altogether. In his six chapters dealing with the ethics of man's attitude towards gods there is a certain allowance made for the purely magical side of such worship, whilst other chapters, such as those on "restrictions in diet" and "celibacy," touch incidentally on the moralization of taboo. I cannot but think, however, that a too exclusive interest in the religious, as distinguished from the magico-religious, has prevented Dr. Westermarck from doing full justice to the question of the contribution to ethics of cult as a whole. As I am inclined to believe, it is not the moral character imputed to the gods that is the real make-weight in the evolution of an ethical type of cult, but rather the nature of the social conditions under which the cult is practised. An Australian initiation ceremony, let us say, has certain moral effects because it imparts a supernatural sanction to education; but

whether magic or religion predominate in the sacred ceremony, whether the Arunta or the Yuin fashion prevail, would seem to make uncommonly little difference from the purely moral point of view.

There are several other questions in dispute between Dr. Westermarck and other leading anthropologists on which I should have liked to touch, had my space-conditions allowed it. For instance, there is his explanation of the religious prostitution of the Babylonian type; or again, his theory—in my opinion highly plausible—that, when the man-god is slain, it is not his soul that is transmitted to his royal successor, but his “holiness,” the *baraka* of the Moors—in other words, his *mana*. I must conclude however, with a brief consideration of but one more point, namely, Dr. Westermarck’s belief that a notion corresponding to *P ‘âr*, the conditional curse of Morocco, is a very widespread religious *motif* which underlies both sacrifice and blood-brotherhood. That in the latter case, at any rate, this explanation will carry us some way I am disposed to allow, on the strength of the “dead blood” of Madagascar and other close parallels. I think Dr. Westermarck goes too far, however, when he virtually refuses to recognise any other idea of a blood-tie, and notably the idea that kin-blood involves sympathetic relations between the members of the kin, as postulated by Mr. Hartland in *The Legend of Perseus*. Mr. Hartland, it is true, propounded his theory years ago, and I daresay would nowadays give a somewhat different account of the working of the sympathetic principle. But surely it cannot be denied that various Australian tribes describe the bond of kin as a unity of “blood” or “flesh,” and regard the man or woman who offends against the exogamic rule as having sinned against that common blood or flesh. The common interest in suppressing such sin would seem at least to imply a common spiritual peril—a loss of luck or what not. Or, again, it seems to me that Dr. Westermarck descends to special pleading in order to rule out the class of instances which show that, say, a piece of a dead man’s flesh in possession of the enemy may be used to work evil magic on his kin. He argues that such a belief “is a superstition connected with the wonder of death, from which “no conclusion must be drawn as to relations between the living.” I should have thought that, if anything in regard to these matters is certain, it is that savages normally assume an almost complete continuity to subsist between the customs and institutions of the living and those of the dead, including their kinship organisation. For the rest, I daresay that I have not fully understood Professor Westermarck. If, however, he means that kinship merely implies a common name without magico-religious associations of any force, and that common rights and duties in savage society are determined by local contiguity and scarcely by the kinship-bond at all, I must suspect an eminently sane writer of having for once given way to paradox.

So much, then, for one or two side issues in regard to which there may be some disagreement between Dr. Westermarck and his brother students. Of the book as a whole anthropologists can have but one opinion, namely, that in respect of reach and grasp alike it is masterly.

R. R. MARETT.

Religions.

Van Gennep.

Religions, Mœurs et Legendes. Par Arnold van Gennep. Paris, 1908. Pp. 318. 18 x 12 cm. Price 3fr. 50.

65

In this volume M. van Gennep has reprinted a number of reviews and essays on ethnographical and linguistic subjects which have appeared from time to time during the past four years. M. van Gennep deals in a brilliant and lucid manner with many of the problems which most interest students of anthropology and folklore at the present day, and even where we cannot follow him in all his conclusions his arguments are stimulating and give cause for thought. Parthenogenesis, Taboo, Phallic Rites,

Totemism, Christianity and Buddhism, Migrations of Races as affected by climate, Legends of Saints, the Formation of the Cult of the Virgin, the Christian Fish-Symbol; such are the subjects dealt with: and the compatriots of Frazer, Lang, Hartland, and Ridgeway will find that our latest authorities on these absorbing topics receive full consideration and attention; in fact, it is not, perhaps, too much to claim M. van Gennep as a disciple of the English School of Anthropology.

One of the most interesting of these essays is that termed "De quelques cas de Bovarysme collectif," in which M. van Gennep adopts the term Bovarysme, invented by M. Jules de Gaultier, to describe the state of those races which, like Madame Bovary in Flaubert's novel, imagine themselves to be other than they really are. He takes as his example of this state of mind the repatriated negroes of Liberia, who imagine themselves to be English or American in civilisation and Christians in religion, whereas, in fact, they are neither, and are not capable of being either, the result being decay and degeneration. Their pitiable state is, as M. van Gennep points out, well shown in Sir Harry Johnston's recent book, *Liberia in 1907*: from these undoubted facts a warning and a lesson is drawn.

Another very interesting paper deals with Woltmann's *Die Germanen und die Renaissance in Italien*, and adopts his conclusion that the leading part in the Italian Renaissance was played by the Germanic element in the population, and that the revival of civilization was brought about not by the masses of the people but by a new race from the north. This theory bears a considerable resemblance to that of Professor Ridgeway as to early Greece, and if it will bear examination it will perhaps give support to that theory, for it is evident that we have a better chance of getting at the actual facts in mediæval Italy than in early Greece. It is not probable, however, that the facts alleged by Messrs. Woltman and van Gennep will be allowed to remain undisputed.

Among the linguistic essays may be noted two excellent papers on the origin of grammatical gender, which also no doubt contain much controversial matter.

In *La Situation des Études Ethnographiques* will be found a full summary of the state of ethnographical and anthropological studies throughout the civilized world which is well up to date. The author refers with sympathy to the failure of the Anthropological Institute and other bodies to obtain any Government assistance hitherto; but he considers that France is even in a worse case than England. We may hope that his good wishes may bear fruit. He says, "There can be no doubt that before long the obstinacy of the men of science, the societies, and the universities will triumph over the inertia, not to say the lack of intelligence, shown by the Government of Great Britain."

May this prophecy be fulfilled!

M. LONGWORTH DAMES.

Madagascar: Magic.

Ferrand.

Textes Magiques Malgaches d'après les MSS. 5 et 8 de la Bibliothèque Nationale. Par Gabriel Ferrand. Annales du Musée Guimet. Revue de 66 l'Histoire des Religions. Paris, 1907. Pp. 22. 25 x 17 cm.

In this brochure M. Ferrand continues the transliteration and translation of portions of the early Arabic-Malagasy manuscripts which have been already noted in MAN (No. 31, March 1907). The present article gives the Malagasy text (the earlier folios in Arabic character), with a literal translation and copious notes of various portions of the manuscripts relating to (1) the Jinns; (2) magical invocations; (3) the guardian angels of the different parts of the body. The first is an account of the appearance of the Jinns before Solomon, who interrogates them as to their

names and practices upon mankind. Each afterwards declares the actions and formula by which men may be preserved from his evil actions. The second section consists of three invocations to Zanahari for protection and various blessings, the first in Malagasy, the others almost entirely in Arabic. Part three is abbreviated and gives the names of the angels to be invoked for the protection of various parts of the body of which forty-three are named. These documents will be of use to Malagasy students as specimens of the language. M. Ferrand promises to utilise them for a collective study of the Islamised Malagasy.

S. H. RAY.

Classics.

Evans, and Others.

Anthropology and the Classics: Six Lectures delivered before the University of Oxford. By Arthur J. Evans, Andrew Lang, Gilbert Murray, F. B. Jevons, J. L. Myres, W. Warde Fowler, and edited by R. R. Marett. Oxford: Clarendon Press, 1908. Pp. 191. 24 x 15 cm. Price 6s. 67

This volume of lectures comes as a reminder of the secure position now held by anthropology in societies standing at the furthest possible remove from primitive culture. There was a time, not very long ago, when the union of anthropology and the classics in a single title would have shocked a majority of scholars. To-day we find among the authors of these essays the names of men whose devotion to Greek and Latin literature is not likely to be called in question, and even the most conservative opinion will hardly take offence. The general change of attitude is to the advantage both of classical and anthropological studies. Hellenic civilisation becomes more intelligible as a gradual growth from primitive conditions; nor is it any the less admirable when the path of its ascent has been detected, and it is found to have reached its Olympian isolation from below instead of from above. Professor Ridgeway in his last address has brought out this point very clearly, and it is unnecessary to impress it further upon readers of MAN. It is equally certain that a closer association with the classics will tend to the advantage of positive science; it will enlarge the outlook, and increase the influence of humanism.

An enumeration of the subjects treated in the volume will give a general notion of its scope. The first lecture by Dr. Arthur Evans deals with the European diffusion of pictography and its bearings on the origin of script, adducing the evidence for the gradual development of writing before the Phœnicians. Mr. Andrew Lang in *Homer and Anthropology* reaffirms his position against Professor Ridgeway. Professor Murray's lecture on the early Greek Epic, or Anthropology in the Greek Epic tradition, is presented with the charm which we expect from all his work, but exception will perhaps be taken to some of his theories, which may be thought to lack grip and not to err on the side of caution. Dr. Jevons is instructive upon Græco-Italian magic. Mr. J. L. Myres treats of Herodotus and anthropology in a learned essay full of the most various suggestions. Dr. Warde Fowler worthily closes the series with a discussion of *lustratio*, or the ritual designed to protect a city from hostile spirits and strange gods.

The studies thus briefly mentioned are not equally exhaustive, nor will all their conclusions meet with equal acceptance. They are all illuminating; they all stimulate interest, though the fire is produced in various ways. Some of the authors obtain a glow by steady friction; others strike brilliant and sometimes erratic sparks. The anthropologist will be grateful to all alike, but his gratitude will be deepest to those who produce a steady and serviceable flame. The alliance between anthropologists and classical scholars, of which this volume is a fresh proof, will effectively serve the cause of liberal education.

O. M. D.

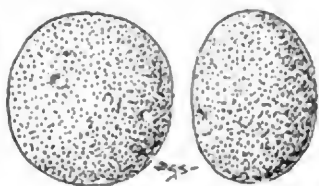


FIG. 1.

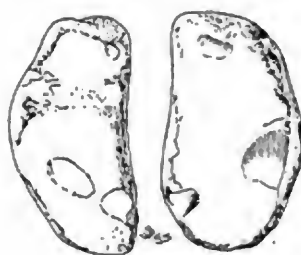


FIG. 2.

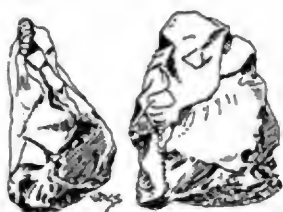


FIG. 3.

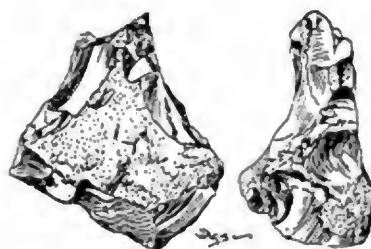


FIG. 4.

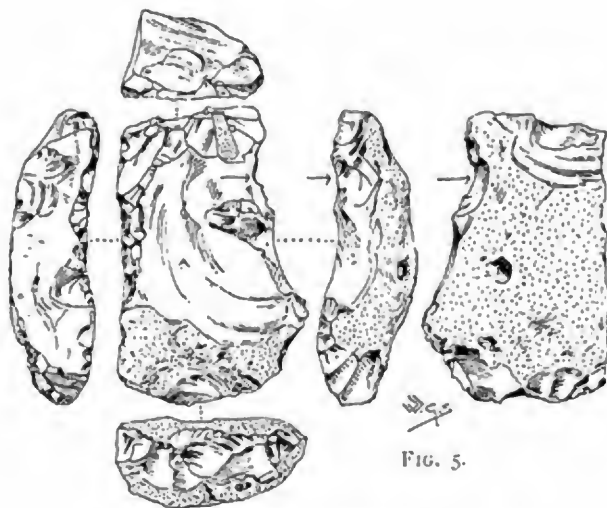


FIG. 5.

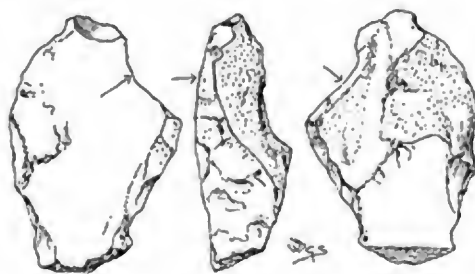


FIG. 6.

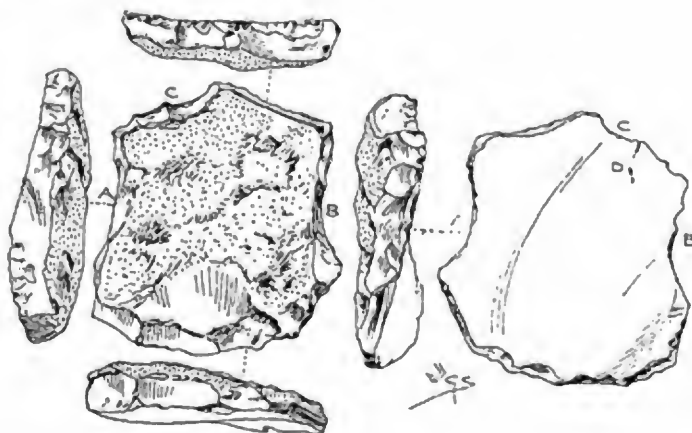


FIG. 7.

ORIGINAL ARTICLES.

England: Archæology. With Plate H.

Smith.

Dewlish "Eoliths" and *Elephas meridionalis*. By Worthington G. Smith, F.L.S.

68

Dr. B. C. A. Windle, F.R.S., in his *Remains of the Prehistoric Age in England*, writes, at p. 7: "Dr. Blackmore has himself found eoliths at Dewlish in Dorset, associated in undisturbed beds with the remains of *Elephas meridionalis*. Now this particular elephant, as was noted above, belongs to the Pliocene period, and had disappeared before Pleistocene times. If, therefore, there is no doubt, and it must be confessed that little seems to be possible, as to the natural collocation of these objects the question of the pliocene date of eoliths must be regarded as settled," and at p. 46, in writing of "eoliths," he says, "The collocation at Dewlish with *Elephas meridionalis* seems to leave little doubt of the age at least of those particular examples." The age Dr. Windle refers to is the Pliocene.

In December, 1908, Professor A. Schwartz and Sir H. R. Beever, Bart., in their paper named, "The Dawn of Human Invention," read before the Literary and Philosophical Society of Manchester, say, at p. 24, that "Dr. H. P. Blackmore has found these eoliths in association with *Elephas meridionalis* at Dewlish."

Of late years statements of this class have been extensively printed in books and papers published in England and America and on the Continent, the inference intended to be conveyed being, that there is "little doubt" that stones chipped by mythical Pliocene men have been found with bones of an elephant usually classed as Pliocene, and that the subject may be "regarded as settled." Nothing of the kind can be deduced from the facts, as there is the gravest "doubt" of the human origin—or even existence—of "eoliths" as such.

The Rev. Osmund Fisher very clearly summarises the finding of the Dewlish elephant bones in a paper named "On the occurrence of *Elephas meridionalis* at Dewlish, Dorset," in the *Quar. Journ. Geol. Soc.*, for November, 1888, p. 818. In this he shows that the first bones of this elephant were found in 1813, and that the specimens in the Blackmore Museum were found by the grandfather of the present Dr. H. P. Blackmore in 1814. Mr. Fisher himself found a worn-down molar of elephant in 1884, and he gives the names of several finders of elephants' bones in a small gravelly deposit at Dewlish. Dr. Blackmore's name is not mentioned as a finder and there is no reference to "eoliths."

In the same journal for February, 1905, Mr. Fisher returns to this subject, and although the paper is quite recent no mention is made by the author of "eolithic implements." Mr. Fisher, however, exhibited five stones from the elephant deposit, and in the discussion Dr. Henry Woodward—perhaps in a joke—referred to some of these as eoliths. Professor Sollas joined in the discussion and said he would accept the term "eolith" if by that term "the exclusion of human agency was implied." Mr. Fisher himself in a postscript says: "It is said that 'eoliths' were exhibited by the author—he did not do so wittingly."

The stones exhibited at this meeting have been preserved by Mr. Fisher, and last year he kindly sent them on to me for examination. One is a distinct sponge—*Cephalitis*—and although I have drawn it, a block need not be wasted over it. The illustrations of the other four are drawn to half scale.

Fig. 1 explains itself, the original label reads, "Nodule of chalk flint bearing on its surface some impressions of polyzoa and other small organisms."

Fig. 2. The label says: "Dewlish elephant bed. A rough chalk flint waterworn irregularly according to its structural inequalities (as its unequal structure) and subsequently split, probably by natural agency (accidental)."

Fig. 3. The label states: "A piece of broken chalk flint, not artificially broken."

Fig. 4. The label says: "Broken piece of chalk flint bearing traces of structure " and impression of a *Cidaris* spine."

The stones 2, 3, and 4 must be the mythical "eoliths" disowned by the author himself, and Professor Sollas. To me the originals do not exhibit the faintest suggestion of human work.

But Dr. H. P. Blackmore's Dewlish "eoliths" have to be dealt with. Dr. Blackmore has obligingly sent me a typical series for examination and I have selected three for illustration, Figs. 5, 6, and 7. To me—and I wish to say this in the friendliest and most respectful manner possible—they are nothing but natural stones with no trace whatever of human work.

The illustrations, drawn with the utmost care, must speak for themselves. Fig. 5: the arrows show where there is supposed human work, according to Dr. Blackmore. Fig. 6: the arrows show the human work, according to the same authority. Fig. 7: this greatly resembles the "eolith" found by me *in situ* at Caddington, with the splinters still on the flint, one of which I replaced, illustrated in MAN, Vol. 7, p. 100. There is an iron stain at D on the Dewlish stone, which suggests the surface of the ground as its place of finding.

If bulbed flakes of undoubted human origin have been found at Dewlish (none were sent to me) with *Elephas meridionalis*, this cannot prove that the elephant and the stones are Pliocene in age, it only suggests that the elephant had survived into Palæolithic times, for the sufficient reason that Dewlish is an old and well-known locality for Palæolithic implements. It is mentioned in Evans's *Stone Implements*, Ed. I, 1872, p. 559; and Ed. II, 1897, p. 638.

I have not written this and former notes on "eoliths" in an attempt to show that a Pliocene ape-man probably never existed. It is, to me, possible that such an animal did live somewhere in pre-glacial and Pliocene times. When the evidence—geological, osteological and archæological—is conclusive, I shall be one of the first to accept it.

WORTHINGTON G. SMITH.

Africa, East: Craniology.

Duckworth.

Report on Three Skulls of A-Kamba Natives, British East Africa.*

69

By W. L. H. Duckworth, M.D., Sc.D.

Of these three skulls (presented to the Department of Human Anatomy at Cambridge by C. W. Hobley, Esq., H.M. Commissioner of Uganda), one is male, the other two female. Their principal characters are noted in the following paragraphs:—

No. 1.—Skull (without the mandible) of an adult male; the dentition has been completed and the teeth were normal in number and characters. The appearance of the specimen suggests that it has been bleached through exposure. The general state of preservation is good.

For a negro cranium this specimen is small. The usual characters are more readily seen in the bones of the face than in those of the cranium proper. The glabellar prominence is slight, the temporal ridges are distinct and rise high on the wall of the brain case. There is no distinct occipital protuberance.

The cranial form is dolichocephalic, resembling many Australian aboriginal crania. *in norma verticalis*, but the post-orbital frontal width is greater than in many Australian crania. The facial profile is flattened, but prognathism is not distinct (alveolar index of Flower = 100).

The orbital margins are indistinct to the outer side of the cavity, and are notched superiorly. The frontal bone is furrowed above the orbit, as in so many African crania.

* Cf. Tate, *Journal of the Anthropological Institute*, 1904.

The nasal skeleton is an admirable example of that type so commonly found in crania of African negroes. Subnasal prognathism is slight, however. The canine fossæ are deep and hence the facial breadth is apparently very considerable owing to the zygomatic arches being thrown into strong relief.

The teeth are smaller than in many male African negro crania. The single remaining incisor tooth is small and peg-like, but does not look as though it had been filed down deliberately (though the practice of filing the teeth is recorded among the A-Kamba—cf. Tate, *Journal of the Anthropological Institute*, 1904, p. 130).

The palate is hypsiloid in form, the spheno-maxillary fissures are wide, and the alisphenoid and parietal bones join at each pterion.

Viewed from behind the form of this skull is distinctly pentagonal.

Special points.—1. The occipital bone bears ridges for the superior oblique muscles, and thus resembles many New Guinea crania, in which these ridges are frequent and large.

2. The conoid processes (behind the glenoid cavities) are large, while the styloid and paroccipital processes are small.

3. The endocranial "fossette" for the occipital lobe of the left hemisphere is distinctly more capacious than that for the right lobe. This asymmetry is said to be associated with the presence of the sulcus lunatus occipitalis on the more protuberant lobe (in this case, the left).

On the whole, the cranium reproduces many characters of a Sudanese negroid skull in the Cambridge Collection.

No. 2.—Part of the metopic cranium of a young female. The mandible and the occipital bone are absent.

The dentition had only just been completed; this shows the youth of the individual. In general this cranium bears a very marked resemblance to No. 1, but the ridges, processes, and crests are much more feeble here—the face is narrower and the palate smaller. The specimen is small, and but for the absence of a flattened area in the region of the sagittal suture it would pass for that of a young Bushwoman. There is a zone of very faintly-marked annular compression in the nasal situation. The mastoids, like the other processes, are small and are perforated near their bases.

The specimen reveals no features indicative of inferiority to the average negro cranium. Like this, it is also dolichocephalic.

No. 3.—Part of the skull of an adult female. The mandible and the facial bones are absent.

The chief point of interest in this example is its very small size, yet it belonged undoubtedly to an adult individual. Like the two specimens (Nos. 1 and 2) just described, this is dolichocephalic. Ridges and prominences are very faintly marked. There is distinct occipital bulging or "renflement," which provides a means of distinguishing this from a typical Bushwoman's skull. The vertical height of No. 3 is relatively small.

Summary.—Of the three crania, the male (No. 1) is of most value for comparative purposes. Even this specimen does not, in my opinion, present characters distinguishing it sharply from other negro crania of African origin. In some of its facial features it clearly recalls crania of aboriginal Australians, but, as already mentioned, the broader and flatter (i.e. not scaphoid) frontal bone easily enables an observer to distinguish it from an Australian skull, as also from many negroid crania from New Britain, &c. It is not possible, therefore, to go further than to describe No. 1 as an African negro skull, but whether from the Sudan, Congo, or even Madagascar, could not be stated on the evidence of the bones alone.

The very small size of No. 3 is of interest, for its dimensions are less than those of some skulls of Pygmy race.

The chief dimensions of the three crania are shown in the following table:—

UNIVERSITY MUSEUM OF HUMAN ANATOMY, CAMBRIDGE.
CRANIA OF THREE NATIVES—A-KAMBA TRIBE, BRITISH EAST AFRICA.

Measurements.

No. of Specimen - - -	1.	2.	3.
Sex - - - - -	Male.	Female.	Females.
Age (approx.) - - - - -	Adult.	Young.	Adult.
Maximum length - - - - -	181	177 ?	171
Maximum breadth - - - - -	137	133	127
Basi-bregmatic height - - - - -	135	123 ?	120
Horizontal circumference - - - - -	517	?	473
Antero-posterior curve - - - - -	397	?	373
Basi-nasal length - - - - -	104	77 ?	?
Basi-alveolar length - - - - -	104	93 ?	?
Nasi-alveolar length - - - - -	61	65	?
Bizygomatic breadth - - - - -	135	113	?
Orbital height - - - - -	33	32.5	?
Orbital width - - - - -	40	38	?
Nasal height - - - - -	44	44	?
Nasal width - - - - -	29	23.5	?
Indices:—Cephalic - - - - -	75.7	75.1	74.3
Altitudinal - - - - -	74.6	69.5	70.2
Alveolar - - - - -	100	?	?
Facial (Kollmann's) - - - - -	45.1	57.5	?
Orbital - - - - -	82.5	85.5	?
Nasal - - - - -	65.9	53.4	?

W. L. H. DUCKWORTH.

Africa: East.

Roscoe.

Brief Notes on the Bakene. By the Rev. J. Roscoe, Local Correspondent of the Royal Anthropological Institute. **70**

These notes are the outcome of a journey in May and June, 1908, through Busoga and Bukedi to Mount Elgon. The Bakene were found on the Mpologoma river in North Busoga on Lake Palisa, which is another branch of the river or an arm of Lake Kioga; again, on the return journey they were found at the ferry of the Mpologoma in Eastern Busoga.

The Bakene are a Bantu tribe dwelling chiefly on the Mpologoma river, but extend to Lake Kioga, and are said to be also upon Lake Salisbury. The Mpologoma rises in Mount Elgon and runs for some miles in a southerly direction; it then winds to the west and rapidly widens until it empties itself into Lake Kioga. The water is held up by the enormous growth of papyrus and spreads over a wide area in some places fully six miles wide. It is well named by the natives the Lion (*mpologoma*) river because of its width; it has formed a complete barrier dividing the Bantu from the Nilotic races as far as Lake Kioga, and the Nile has continued the division to Lake Albert. The Mpologoma is the real home of the Bakene, where the tall papyrus forms a perfect shelter for their floating homes and the fish provides them with ample food.

In their customs, language, and appearance these people are closely allied to the

Basoga of the north-east, and they have a tradition that their forefathers came from that part. Both sexes extract the two front lower teeth and the women pierce the under lip, but do not disfigure themselves in any other way.

In the lakes their huts are exposed to view, but are always at a safe distance from the shore to prevent any one from molesting them without the means of canoes. They build their huts on papyrus roots, some of which are not more than 4 feet in diameter so that the hut takes up the whole area and the door opens out immediately upon the water.

In the river their huts are well concealed in the tall papyrus and are reached by tortuous water tracks. Sitting in a canoe, being paddled along by a man standing to his work, one was reminded strongly of Venice and its gondolas; here, however, instead of stately stone walls there were walls of tall papyrus towering 14 or 16 feet above the water. Every few moments side ways were passed leading to the homes of some of the people.

Not only the men, but also the women and children are experts in handling the dug-out canoes, even small children of three or four years old have to find their amusement in canoes and also get their exercise in this way.

I was fortunate to reach Lake Palisa, which is a large open space in the river, in the early morning soon after sunrise. Standing on the shore I watched the people busy with their various duties. Both men and women were at work, some with the fish traps, others fishing in the deeper water, whilst some women were up to their waists in the water emptying holes which had been made the previous day and into which small fish had found their way during the night. Numbers of small children were paddling about from tuft to tuft of papyrus in tiny canoes enjoying life even as the happiest of English children. In the distance was a huge crocodile floating lazily away into deep water, and some children in a large canoe watching him as they fished. On some of the smaller tufts of papyrus were fetish huts, made for the ghosts of some departed relatives, into which food and clothing, &c., are placed to prevent the ghosts from troubling the community.

Clans and Totems.—It was somewhat difficult to obtain much information from these people; they were all so taken up with their own affairs, they were unwilling to come to the shore to tell a stranger about their lives and doings; still, after a little coaxing and gentle persuasion, a few came and were fairly intelligent and communicative. Their clans and totems are:—

The Bakoma clan have for their totem the husk of the small millet (*bulo*).

The Baholwa clan have for their totem the guinea fowl.

The Bagota have for their totem the kyachuli, a small animal of the cat tribe.

The Babira have for their totem the ng'onge, an otter.

The Bahaugo have for their totem the mondo, a civet cat.

The Bagule.

The Bahobando.

It was impossible to find what these last two hold as totems. There may be other clans and other totems in other parts, these my informants gave as being the only clans in their part.

Marriage.—Polygamy is practised by the tribe, and they are also exogamists. The children all regard their father's relations as their own special clan, and their mother's sisters are all mothers to them, so that the relationship always debars them from marrying into their mother's clan.

When a youth comes to puberty and wishes to marry he has first to build a hut for his future wife; in this way he may obtain assistance from some of his friends and also from his father. It may be he has seen some girl who has taken his fancy, or, on the other hand, he may have no particular girl in view. He may take all the

responsibilities upon himself and go boldly to the girl's parents and ask for their daughter, though, as a rule, he leaves the whole arrangements to his father or some near relation.

The girl has the right to accept or reject the offer, though she is as a rule guided by her parents and friends. In some cases the youth, after having asked the girl's father if he may have his daughter, goes to her house and places a hoe in the doorway; if she takes it, it is the token that he is accepted. On the other hand, if the hoe is left the youth understands his offer is rejected. When a girl has accepted a man's advances he goes home and brings a present for each of her parents, for the father a male goat, and for the mother a female goat; this present ratifies the engagement. The clan next decide the amount the man is to bring as a dowry; it may be ten goats or more, and some barkcloths, or they may ask other things from him. When he has procured and presented them he can claim his bride.

The bride is taken to her new home by her brother who is the chief person concerned in the marriage, he has the right to give her away or refuse to allow her to marry a person he does not like. He takes her in his canoe and is accompanied by numbers of the bride's friends in their canoes. They start so as to reach the bridegroom's house by sunset. On the way they sing songs, keeping time with their paddles. The party stays the night with the bride and are regaled with a good meal and a plentiful supply of fresh meat, which is the principal item in a feast, according to the native idea. The next morning the bridegroom gives to each of the guests a small present, and they depart to their homes, leaving one girl only, who is either a sister or a near relation of the bride. This girl remains some ten days with the bride, and is then sent back with a present, a fowl or a goat according to the bridegroom's circumstances.

The bride is veiled when she is taken to her new home, a large bark-cloth being thrown over her head coming down to her feet. She retains her veil for four or five days after she enters her husband's house; when she removes it, the bridegroom gives her sister a fowl as a thank offering that matters are progressing favourably.

After a few weeks of married life the bride returns to her parents to see them and takes them a present of two fowls; she does not stay the night, but returns in the evening to her home; her parents give her a pot of butter and a good supply of all kinds of food, which she takes and cooks for her husband and his friends. This meal ends the marriage ceremonies; the woman now enters upon the full duties of married life, assisting her husband in fishing and doing the cooking and other domestic duties.

Birth.—No woman can bear the idea of being childless, it is a disgrace to her; the husband will do all in his power, and spare no expense to make his wife a mother; should all his efforts prove futile he sends his wife back to her parents, and they send him another woman to take her place, or failing that they return the dowry. Many women elect to remain with their husbands after they have been returned to their parents or clan, they know there is no longer any chance of marriage, and though they cannot hope to be a favourite wife, still they can have some of the privileges of married life.

The women are, as a rule, strong and healthy and have children, though few of them ever have so many as six, three being the average number for each wife.

When the time draws near for an expectant mother to be delivered she calls someone who has had experience in such matters to come and act as her midwife; a friend is also called in to be the assistant. At the time of birth the mother does not go to bed, she merely stoops down and the friend stands behind her and supports her by holding her under the arms; the midwife stands in front and receives the child. When the placenta has come away the umbilical cord is cut with a bit of sharp papyrus.

The mother remains in the house for five days together with the midwife ; on the fifth day she is brought out and bathes and her hut is cleansed. The mother and midwife have a meal together, the midwife is given a present for her work and returns to her home. The husband's mother and a following of his clan come and name the child ; it is given the name of one of his ancestors whose ghost is expected to look after it. The umbilical cord is placed in a bit of mud and hidden away amongst the papyrus near the hut.

When twins are born the father announces the fact by beating a drum, this is taken up by his neighbours ; the father takes a couple of fowls to his parents and two to his wife's parents, and thus announces the fact to them. The father's sister's son comes and closes the door and makes a way out at the back of the hut. He is the principal person also throughout the whole of the dancing ceremonies. The parents each wear two cowry shells on their foreheads, which is the token that they are observing the twin ceremonies. The father, has to collect food and especially animals, for the final ceremonial meal when the twins are first brought out of the hut. As he goes from place to place amongst his friends and relations and is given food to eat or beer to drink, he has to put some into a vessel which he carries for the purpose, and a little of the beer into a gourd which he carries, these portions he takes back to his wife who eats and drinks them. Should either of them disregard this the children will be sure to fall ill and die. This would be a great calamity to the clan because the children are supposed to be the gift of the gods, and their removal by death a mark of divine displeasure. The afterbirth of twins is put into two new cooking pots, and after it has been dried it is taken to the shore and left in the grass near one of the gardens used by the Bakene.

When the father has found all the animals he needs for the final sacred meal, he consults with the medicine man, and with him settles the day when the twins are to be brought out and named. All the relatives are told and come together for the ceremony ; the twins are brought out and after the meal is over they are named and the parents are free to go the round of visits to dance and receive gifts from the people to whom they go. The children are seldom taken with the parents for the short journeys, but have to go for the long ones.

Inheritance.—The property of deceased persons is divided amongst the members of the clan, who also choose the heir. The heir receives the canoe and some of the household goods as well as the hut. The wives and the cattle, if the man had any on the shore, are divided up amongst the clan. In some cases the clan vote the heir one of the wives and some of the cattle, though this is quite exceptional, the hut, canoe, and fishing tackle being his only right.

Beliefs.—They believe in various deities, of whom the chief is called Gasani ; he is believed to be more powerful than the others, and especially has power over the sky and water. This deity has his temple and his priest on the water. They go to him in all kinds of illnesses and for other causes also.

Kibumba is the second deity to whom they go, should they not obtain help from Gasani.

When they go fishing they offer a fowl to the water-spirit to allow the fish to be caught. The fowl is killed over the side of the canoe so that the blood flows into the water, the entrails are also thrown into the water. The fowl is cooked and eaten whilst they are in the canoe.

Fishing.—The chief diet of these people is fish, they fish with the rod and line, they use traps, and also sharp sticks for a kind of mud fish which they prod for and spear in the likely places. The fish they use fresh and also dry over wood fires and in the sun. They also barter the fish for clothing and other foods, and for cooking pots.

When a man is making new lines or nets, his father's wives must keep away from him lest they should happen to step over his work ; this would spoil it, no net or line thus stepped over would catch fish, they think.

Government.—Each clan has its head man or chief to whom the members of the clan go when differences arise between the members. These head men are chosen by the clan when the vacancy occurs. The office is held until death, unless the man forfeits it through drink or other vices, or is incapacitated through illness.

They pay no taxes at all to the head of the clan, but when they have any case to be tried they take some offering of fish, a goat, or some other thing valued by them. Under ordinary circumstances an occasional present of food, or, when they can procure it, some beer, is all the people give to their chief from one year to another.

Building.—The huts are, as stated above, built on the papyrus roots which are floating in the river ; they are as a rule firm and strong. The method of building is to cut or break down the stems of the papyrus and thus form a foundation for the hut, other stems of papyrus are next laid across the first layer, and thus layer upon layer is placed until they have a floor raised well above water line. They next bring fairly strong tree branches and insert them firmly into the foundation in a circle ; these branches are bent inwards and bound into position by rows of papyrus stems ; these form a strong wall for the thatch. When the framework is completed it looks like a huge conical basket, some 10 feet, or sometimes 20 feet, high, and from 10 to 15 feet in diameter. This is thatched, leaving a small hole at the apex for the smoke. The floor is rough and uneven, it has only a small place plastered upon which the fire smoulders. The bedstead is raised upon stout posts fixed into the floor so that if a sudden flood comes the inmates may be out of reach of the water ; the papyrus often sends its roots down into the earth and when a sudden flood rushes down from the highlands the hut cannot rise quickly enough and is therefore flooded. There is no need of a door to the hut, the people are safe from the approaches of wild animals, and from their enemies. As a rule the door opens immediately upon the water so that the owner steps out of his hut into his canoe ; some of the chiefs have, however, a small landing-place in front of the hut, and a path from one hut to another if they have more than one wife. All the paths are made by cutting the papyrus down and throwing other stems across the first layer. None of the huts have poles in them, they are simply wicker frames thatched.

The Water Ways.—The water ways are kept open by constant use and by cutting back the growth of the sudd ; the off-shoots or side ways are private ways ; that is, they are for the use of the family whose hut is at the end of them. At the entrance of the side ways there is often an arch, especially over those of important persons ; the arch has different things strung to it which possess medicinal and magical properties ; these are meant to remove any evil which may have attached itself to the owner during his visits abroad, so he is able to enter his own water way and home void of danger or the ills which evil-disposed persons may have cast upon him.

All their canoes are of the dug-out kind ; they use a long heavy paddle, and as a rule stand to paddle. For years they have held the ferries on the river, and charge a small fee to convey people over from side to side. Some of the canoes are large enough to hold three or four cows and the men to guard them when crossing.

Dress and Ornaments.—In appearance the Bakene are like the Basoga, the nose is inclined to be flat though they have not the protruding jaw of the negroes. As a race they have pleasing features. They are from 5 feet 6 inches to 5 feet 10 inches in height ; most of the women met were about 5 feet 7 or 8 inches in height. They are of a wiry build, more developed in the arm than in the leg, as is natural from their mode of life, most of which is spent in a canoe paddling about.

The men wear a bit of barkcloth threaded under a string belt at the back ; it is

passed between the legs and threaded under the belt in front. When not at work they throw a barkcloth over the right shoulder, pass it under the left arm, and throw the end over the right shoulder again, the left arm being left exposed.

The women have the same kind of barkcloth over their loins, and also wear belts decorated with cowry shells; those who can afford them have bracelets and anklets of iron and brass. Both men and women wear their hair short and shave their heads from time to time.

J. ROSCOE.

REVIEWS.

Africa, East.

Hollis.

The Nandi; their Language and Folk-Lore. By A. C. Hollis. Oxford: Clarendon Press, 1909. Pp. xl + 328. 23 × 15 cm. Price 16s. **71**

Mr. Hollis's book on the Masai was one of the most noteworthy contributions to ethnography which have appeared in this country during the last ten years, and its successor, *The Nandi*, is in some respects still more remarkable. Very little has hitherto been known of the non-Bantu peoples in the northern part of the East Africa Protectorate; Mr. Hollis's study marks a distinct advance in this direction, and we hope that he will be enabled to follow it up by similar accounts of the Suk and Turkana, perhaps also the Gang (Acholi) and Bari. The Nandi are, like the Masai, herdsmen and warriors, though they have of late years become cultivators after a fashion. Their language is allied to that of the Dorobo—or rather, the Dorobo speak a dialect of Nandi, a fact which, as Sir Charles Eliot prints out (Introduction, p. xiv), is somewhat perplexing, in view of the fact that they do not appear to be racially akin. The Masai and the Nandi agree in supposing the Dorobo to have existed upon earth from the beginning of things. The theory that the latter borrowed the Nandi language also has its difficulties, as there are no Nandi in the country principally occupied by the Dorobo. The most probable solution, according to the same authority, is to suppose that the Nandi formerly extended further east and south, or the Dorobo further west, so that the two peoples were in touch, and that a wedge was driven between them by the Masai invasion from the north.

The Nandi language is sufficiently different from the Masai to deserve a separate study. We are not aware that anything has been done for it hitherto beyond the vocabulary published by Sir Harry Johnston in his *Uganda Protectorate*, and Professor Meinhof's study of Dorobo in the *Transactions of the Berlin Oriental Seminary for 1907*. The very full English-Nandi vocabulary collected by Mr. Hollis, the list of trees, grasses, &c., and the texts with literal interlinear translation, are all most valuable.

The list of clans and totems on p. 5 is an item of unusual interest, together with the section on sacred animals and the tabus observed by each clan. The Nandi still consider it wrong to kill their totem-animals, but the ancient rigour of the prohibition is somewhat relaxed and in many cases a formal apology is considered sufficient.

Though Mr. Hollis does not mention the belief in the totem as actual ancestor of the clan, he relates a curious story indicating a strong consciousness of relationship with it. A Nandi of the bee totem (the Kipkenda clan) happened to pass by when Mr. Hollis and his followers had been driven from their camping-place by an angry swarm of bees, and volunteered to quiet them. "He was practically stark naked, but he started off at once to the spot where the loads were, whistling loudly in much the same way as the Nandi whistle to their cattle. We saw the bees swarm round and on him, but beyond brushing them lightly from his arms he took no notice of them, and, still whistling loudly, proceeded to the tree in which was their hive. In a few minutes he returned, none the worse for his venture, and we were able to fetch our loads."

It is not explained why some of the seventeen clans enumerated (the last, *Chemur*, perhaps no longer exists) have two totems and others only one. There is no prohibition against marrying into the same clan, though inter-marriage within the same family is forbidden. Certain clans may not marry into certain other clans, but there is no clear division in this respect. Five out of the seventeen appear to have no restriction laid on them, while the Tungo, which has the hyena totem, is debarred from marriage into no less than six clans. Others have three forbidden alliances, while several have only one. In some cases it is quite possible to trace a connection between the totem and the things which the clan may or may not do, thus the totems of the Toiyoi are "soldier ant and rain" (which is associated with, if not treated as synonymous with, thunder), and "if soldier ants enter the house of a Toiyoi they are requested to leave, but no steps are taken to drive them away, and the house is vacated if necessary until the ants have passed on. During a heavy thunderstorm the Toiyoi seize an axe, and having rubbed it in the ashes of the fire, threw it outside the hut, exclaiming at the same time: *Toiyoi sis kain-nyo* (Toiyoi, or thunder, be silent in our town). In the event of a hut being struck by lightning, a member of the clan is called to burn the place down, and when an ox is struck, it is the duty of a Toiyoi to turn it over on its side." On the other hand, it is impossible to conceive of any reason why people of the baboon and house-rat totems should not be allowed to collect honey during the rains or why the cattle belonging to members of the monkey totem may not pass the night outside their own kraal.

The Tungo clan, whose totem is the hyena, "are held in high esteem, and one of their number is selected as a judge or umpire in all disputes." One wonders whether this is because of the sacred character attaching to the hyena, who enjoys a prestige extending beyond the limits of his own clan. He is "the only animal which the Nandi, like most East African tribes, hold in respect or fear." Though they will not scruple to kill a hyena on land owned by no one, "they will not touch him if he prowls round their homes. Nobody dares to imitate the cry of hyena under pain of being turned out of the tribe or of being refused a husband or wife in marriage."

A complete collection of African beliefs connected with the hyena has yet to be made, and we fancy the subject would well repay investigation. The werwolf-hyena notion is very common, existing, *e.g.*, in Abyssinia and Nyasaland, and no doubt in many intermediate places, though sometimes other animals seem to be preferred. We hear nothing of this particular view among the Nandi, but they think these creatures "talk like human beings and hold communication with the spirits of the dead." Their peculiar theory as to the hyena's physical constitution is shared by the Zulus (Colenso's *Dictionary*, *s.v.* *Pisintshange(im)*), but we have no means of knowing whether it prevails elsewhere or how it originated. When a hyena is heard at night, "all Nandi women, except those of the Tungo clan, flick their ox-hide covers until it stops." The Tungo clan are also exceptional in their funeral rites, for though, like others, they expose the corpse to be eaten by hyenas, they do not, if it is still untouched on the second day, turn it over on the other side.

These funeral ceremonies are described on pp. 70-72. It is remarkable that if the hyenas leave a corpse alone, it is taken as a sign that the deceased met his or her death by witchcraft. This seems to show that the werwolf idea is foreign to the Nandi, since where it prevails, the theory is that wizards take the form of hyenas for the express purpose of feeding on the bodies of the dead.

Under the heading of "government," the geographical division of the country into "districts" and "parishes" is worth notice, especially considering the comparatively short occupation of the Nandi. Another curious feature is the double administration

carried on conjointly by the representatives of the Orkoiyot, or chief medicine-man (who is of Masai descent), and of the people.

The book is so packed with information that it has been impossible to do more than touch on a few among the points of interest which it contains. It is illustrated with a large number of excellent photographs.

A. WERNER.

America, South.

Chervin.

Anthropologie Bolivienne. By Dr. Arthur Chervin. Mission Scientifique G. de Créqui Montfort et E. Sénéchal de la Grange. Three Vols. Paris, 1908. **72**
Pp. xl + 411; 435; 151. 28 x 20 cm.

The data with which Dr. Chervin deals in these three volumes were obtained in connection with the Mission Scientifique G. de Créqui Montfort et E. Sénéchal de la Grange. Though he was largely instrumental in organising the Expedition, Dr. Chervin was himself unable to participate in it. He secured, however, the services of M. Julien Guillaume, who undertook the branches of anthropometry, metric photography and phonography, and it is upon the materials thus obtained that Dr. Chervin has worked.

The programme of the Expedition was an ambitious one, including not only the general study of man in the Bolivian highlands, but also that of the geography, flora, and fauna. The Expedition left France on April 3rd, 1903, returning at the end of the following October. M. Courty alone remained till February 1904 to carry out important excavations at Tiabuanaco. On the conclusion of the exhibition of the collections made by the Expedition, M. de Créqui presented the whole of the collections to the State. Dr. Chervin's long-cherished hope of establishing an American Museum in Paris was unfortunately not realised on this occasion, as the various specimens were allocated to different museums.

Dr. Chervin's object has been to obtain from the anthropological evidence collected by M. Guillaume some knowledge of the native races which, prior to the Discovery, inhabited the highlands of South America, now included in Bolivia. In his introduction and elsewhere he pays a high tribute to the work of earlier investigators of the Quechua (or Quichua) and Aymara peoples—Alcide d'Orbigny, Sir Clements R. Markham, and David Forbes. With respect to ethnogeny, he advises the greatest caution in dealing with questions of ethnical migrations in prehistoric times.

As regards demography, the Expedition found it necessary to collect fresh data, from which two facts of importance transpired: firstly, that the exceedingly sparse population— $1\frac{1}{2}$ millions in a country $3\frac{1}{2}$ times the size of France—was totally inadequate for making the most of the agricultural and mineral wealth of the country; and secondly, that the half-breeds are rapidly becoming an important and progressive element in the community, more especially from the commercial and industrial aspect. The increase of half-breeds is also discussed from the point of view of the physical effects of altitude.

The chief characteristics distinguishing Aymara and Quechua are very briefly given on pp. xxxi-ii; they are, however, very slight. The former have a flatter face and are more robust; the Quechua take shorter steps in walking although they have longer legs, and they dress their hair differently; there are also minute differences in costume.

Dr. Chervin obtained, through various scientific men well acquainted with Bolivia, answers to the list of questions issued by the Société d'Anthropologie. These results apply exclusively to certain highland Quechua. As was to be expected, the information is fairly full when dealing with concrete matters, for a description of which very little special ethnological knowledge or training is necessary, but the method is apt to afford meagre results where the social life is concerned. In this case the meagreness

may be partly due to the prolonged influence of the Spaniards and of the Christian religion. The family is not lost in the tribe and is well defined "with precise terms" for the uncles, cousins, brothers-in-law, &c." Marriage is monogynous and "endogamous." There is no totemism or social rank; wealth alone counts. They are not warlike and have no warrior caste. They never practised anthropophagy. Property is individual. All are Catholics with a special reverence for St. James, but there is a great belief in the power of the ghosts of ancestors, who cause droughts, &c. Magic virtues are ascribed to certain birds, plants, and stones. Divination to discover a thief consists in beating an armadillo till it cries out, when it will say the name of the culprit. No woman or priest may go into a mine as evil spirits put minerals there.

M. Guillaume asked a large number of persons how many brothers and sisters, and sons and daughters they had, and by this means some demographic information was obtained.

Dr. Chervin describes in detail the photographic methods employed by M. A. Bertillon and applied by M. Guillaume in the field. He condemns the photographs of all other travellers as having no documentary or scientific character "since they are not comparable with one another," and he regards "metric photography" as the only scientific method. By following his system it is claimed that measurements can be taken on the photographs. The present writer has not had time to test this statement, and before the method is generally adopted it will have to be severely tested by different observers by comparing the measurements on the actual subject with those on the photograph. The reliability of the results depends on so many factors that it is improbable that investigators of different nationalities, working with apparatus made in various places, will be able to obtain absolutely comparable results.

The second volume is devoted to measurements made on the living. They consisted of the stature, span, thoracic circumference, sitting height, length of the leg (determined by subtracting the last measurement from the stature), length of the head (measured from the root of the nose), breadth and height of the head, bizygomatic breadth, length and breadth of the left ear, left cubit, length of the left middle and little fingers, length and breadth of the left foot. All these measurements and their relations to one another are carefully analysed and displayed in seriation tables and in graphic tables showing the distribution of the measurements on squared paper. All this has entailed a vast amount of labour on the part of the author, who sums up each conclusion by comparing the Aymara with the Quechua, the main result being that there seems to be very little difference between them, although Dr. Chervin regards them as quite distinct peoples. The stature of the latter (1.58 m.) averages 1 cm. more than that of the former; their span (1.6 m.) is the same; the sitting height of the Quechua is 84 cm., and of the Aymara 87 cm.; the cubit of the Quechua (436 mm.) is 1 cm. longer than that of the Aymara, the legs of the latter are estimated at 3 cm. shorter than those of the Quechua; all the other body measurements are identical. The majority of both tribes are brachycephalic, with a cephalic index of 82; about one-third are mesaticephalic.

The third volume deals with craniology. Here again Dr. Chervin insists on the importance of metric photography. He very carefully describes his apparatus and methods of orientation and fixing the skull in position. The Expedition brought back a collection of nearly 500 skulls, four skeletons, and other specimens. As soon as he had finished the first two volumes Dr. Chervin hoped to begin a study of the crania, but in the interval they had ceased to be at his disposal. Thus he was unable to complete his study; all he had been able to do was to measure their length and breadth and to photograph them. Owing to prevalence of artificial deformation these measurements and the resultant indices are not of any particular value. The photographs are

on too small a scale to be very serviceable, and it would have been better if they had been twice the size, even if the number had been considerably reduced.

From the foregoing account it will be seen that Dr. Chervin has taken a great deal of pains in the preparation for the Expedition, and in the elaboration of the results obtained. In addition to the record of new data, the book is a serious contribution to the discussion of anthropological methods, and it should find a place in every anthropological laboratory. The value of the book is greatly enhanced by the very large number of excellent photographs.

A. C. H.

Culture.

Frobenius.

The Childhood of Man: a Popular Account of the Superstitions, Manners, Games, Arts, Occupations, and Folklore, &c., &c., of Primitive Man. By Leo **73**
Frobenius. Translated by A. H. Keane, LL.D., F.R.G.S. With 415 illustrations.
London: Seeley & Co., 1909. Pp. xviii + 504. 23 x 14 cm. 16s. net.

Dr. Frobenius's book is already popular in Germany. The author spent his earliest days in the Berlin Zoological Gardens, where "he came into constant contact with " Eskimo, Laplanders, Indians, Bedouins, and Blacks," and the book displays the spoils of a lifelong collection of ethnographical objects and information. The sub-title is misleading: this is not a comprehensive account of the life of Primitive Man, but rather a selection to illustrate certain theories.

Dr. Frobenius's theory of cultural evolution is frankly chronological and unilinear. *The Childhood of Man* is the stage of human history which came to an end with the beginnings of regular agriculture: within it, Frobenius recognises three periods, characterised by modes of thinking about the universe. Man begins as a hunter; his chief interest is in the animals which surround him; he regards them as more powerful than himself, but not different in kind. Typical of this period are the Bushmen, who "could make no distinction between man and animals, and knew no otherwise than that " a buffalo could shoot just as well as a man with a bow and arrow if he had any." This is the period of "Animalism," from which all animal-incidents in mythology are survivals. In the second period man's thoughts are concentrated on the mystery of death; his religion consists in observances towards the dead, his philosophy in speculations about the fate of souls. This is the period of "Manism." Savage notions of metempsychosis, sacred animals, and totemism form a link between the first and second periods. The third mythological epoch is characterised by "Solarism, or the contemplation of the universe." Sun-worship and interest in the heavenly bodies generally did not begin with agriculture: "on the contrary, the first stimulus . . . " to the contemplation of the sun was . . . given during the early migrations. " When the peoples of the earth began to move in large groups over wide areas, when " they had to find their bearings . . . then they began for the first time to look " around upon the world, and thus acquired an interest in the structure of the universe, " in the sun, the moon, and the stars." A bridge from the Manistic to the Solaristic period is found in the fact that in many primitive mythologies the Path of the Sun to the West is also the Path of the Souls.

Each period is illustrated by myths from all parts of the world, dovetailed into each other and into the scheme with a fascinating ingenuity which does not fail to make its impression in spite of a certain baffling incompleteness of method. A few of the incidental theories must be noticed, for the book is not all mythology. Labour begins with the manufacture of ornaments. Secret societies belong to the Manistic epoch, and by them men try to assimilate themselves to the powerful spirits of the dead. The "Iron Age" is no true age of human progress, but a subordinate feature of culture depending on the presence of iron ore, unaccompanied by any general advance in the arts of life. War began when peoples had been constituted in stable societies; until

that time there were only duels, man-hunts, murders, and vendettas; from these last came the legalisation of bloodshed.

If any English anthropologist has influenced Frobenius it is probably Tylor; the validity of "survivals" is implied throughout. To English readers his work must be at least a refreshing change from the stale old clichés of anthropological illustration, verbal and graphic. Yet it is difficult to see exactly what place the book is to fill. It is not quite a scientific work (for one thing it gives no references); not quite a First Reader for the student, whose teachers will hesitate to enter him on a book which ignores the geographical factor in cultural evolution; and as a *travail de vulgarisation* it has (besides being expensive) this grave fault, that, by neglecting the material and economic side of culture, it gives an impression of savage life as essentially fantastic and bizarre, rather a Lunacy than a Childhood of Man.

BARBARA FREIRE-MARRECO.

America, South.

Spruce: Wallace.

Notes of a Botanist on the Amazon and Andes. By Richard Spruce, Ph.D. **74**
 Edited by Alfred Russel Wallace. London: Macmillan & Co., 1908. 2 vols.:
 lii + 518; xii + 542. 23 × 15 cm. Price 21s.

In arranging for publication the manuscripts of the late Dr. Spruce, Dr. Alfred Russel Wallace has accomplished a task which, although without doubt undertaken as a labour of love, must have proved one of considerable difficulty. In order to produce this connected narrative of some fifteen years spent in arduous travel and scientific exploration, innumerable notebooks have had to be consulted, the gaps filled in from letters, and the whole thrown into consecutive form by the addition of just sufficient editorial comment to facilitate reading.

Much as it is to be regretted that the continuous ill-health which beset the latter part of the long and useful life of Dr. Spruce rendered it almost impossible for him to prepare his notes for publication in the form evidently designed by him, it is certain that the task could not have fallen to more capable hands than those of the present editor, and Dr. Wallace is to be congratulated, not only on having rendered accessible a valuable contribution to our knowledge of tropical South America, but also on having raised a lasting monument to the memory of his departed friend.

The general reader, who has perforce to pass lightly over much of the admirable botanical descriptive matter, will probably be most of all impressed with the spectacle here presented of an indomitable will housed in a very frail body. That a man whose record in England was one of frequent serious illness should have spent so many years in the Amazon valley and in the elevated region of the Eastern Andes, exposed to all the vicissitudes of a tropical climate or the freezing blasts of the Cordillera, passing days and nights in native canoes when frequently reduced to a diet of uncooked farinha and bad water, and yet should have maintained a high average of bodily efficiency, can only evoke astonishment and admiration.

The date of Richard Spruce's wanderings, 1849-1864, places his work within the "heroic period" of scientific travel in South America. One feels constrained to place the book on the library shelves beside Dr. Wallace's own works, and in such good company as is afforded by the *Voyage of the Beagle*, Humboldt's *Narrative* and the writings of Belt and Bates, for the same spirit animates them all.

Although the book, as its title implies, is of primary interest to botanists, students of other branches of science will find much of permanent interest and value in its pages. It was a matter of regret expressed by Spruce himself that he could bestow so little of his attention upon other than the botanical and geographical features of the wonderful country into which he penetrated, but none the less his observations on the native tribes of the great river region should prove welcome to anthropologists. The account he

gives of the wandering peoples of the Amazon and Rio Negro forests, who subsist almost entirely upon the chase and wild fruits, clearly illustrates the reason of the comparative sparseness of population in this vast region, where a single family may wander over wide areas from camp to camp as their foodstuffs become scarce locally. As already mentioned, the author was often reduced to the direst straits for lack of food. Occasionally the natives threw obstacles in the way of his obtaining seeds and other specimens of their common edible plants, evidently suspecting the motives which led the stranger to seek such information.

On more than one occasion the author was present, much against his will, at native feasts, one of which he describes in considerable detail. Of special interest in this connection are his observations on narcotics, with the curious sex-prohibitions attending their use, a matter more fully discussed under a special heading in the second volume. He has much to say, moreover, of the "payés" or medicine men and their customs.

Considerable space is devoted to a description and discussion of the Indian rock-pictures of the Casiquiari and Uaupes rivers, the paper being illustrated with several careful drawings of the figures. Spruce objects to the term "picture-writing" being applied to these works, since after careful study he came to the conclusion that they were in no sense writings or hieroglyphics. The drawings are for the most part exceedingly rude in execution, comparatively few of the objects represented being recognisable even by the natives of the region to-day. Many of the drawings figured appear to the present writer to bear a striking resemblance to the Carib rock-scrivings of the West Indies.

The opinion arrived at by Dr. Spruce in regard to the origin and object of these works of savage art may be given in his own words:—

"Having carefully examined a good deal of the so-called picture writing, I am bound to come to the conclusion that it was executed by the ancestors of Indians who at this day inhabit the region where it is found, that their utensils, mode of life, &c., were similar to those still in use, and that their degree of civilisation was certainly not greater, probably less, than that of their existing descendants. The execution of the figures may have ranged through several centuries, a period which in the existence of a savage people is but a year in that of the highly-civilised nations of modern Europe. In vain shall we seek any chronological information from the Indian who never knows his own age, rarely that of his youngest child, and who refers all that happened before his own birth to a vague antiquity wherein there are no dates and rarely any epochs to mark the sequence of events."

Whilst agreeing in the main with this decision of the author a certain hesitation is felt in assenting to his suggestion that the Indians "amused themselves by scratching" on the rocks any figure suggested by the caprice of the moment." The savage is really a very serious person, whose strangest actions are performed in obedience to some sort of logical impulse, however wild his reasoning may appear from the point of view of civilised man. Unless I mistake, the ethnologists of North America hesitate to dismiss the rudest scrivings of the Red man as mere meaningless scrawls, and in the present instance it would at least be possible that the drawings have some forgotten religious or tribal significance. Perhaps they mark the sites of former feasts or ceremonial gatherings.

It may be mentioned that Dr. Spruce offers an interesting explanation of at least one mysterious forest sound, resembling a gunshot, akin to the famous "midnight axe" that has given rise to so much controversy. A sound unhesitatingly attributed by the Indians to the agency of a certain malign forest sprite was traced to the sudden collapse of a species of palm, which, when dead, gradually rots away, and is ant-eaten until nothing but a mere shell remains. This eventually goes suddenly to pieces with a loud

report, leaving nothing but a heap of dust and splinters to mark the place where a few minutes before it towered among its fellows.

Several beautiful photographs worthily accompany Dr. Spruce's delicate pencil drawings; one of the magnificent cone of Chimborazo calling for special admiration. This brief notice would be incomplete without a reference to the misfortunes which overtook this indefatigable man of science towards the close of his long residence abroad. Whilst engaged in the difficult task of procuring specimens of the valuable "red bark" plants for India, Dr. Spruce's sorely tried constitution gave way, and an illness resulted, which attended him throughout the rest of his life. Shortly afterwards the limited resources which his unselfish labours in the cause of science had permitted him to gather were entirely lost in the failure of a bank in Guayaquil, a failure brought about by the fraudulent dealing of an Englishman. For the remainder of his life he was dependent upon the all-too-scanty pension allowed him by the British, and latterly the Indian, Government. It is some consolation to think that, to him, his work brought its own reward.

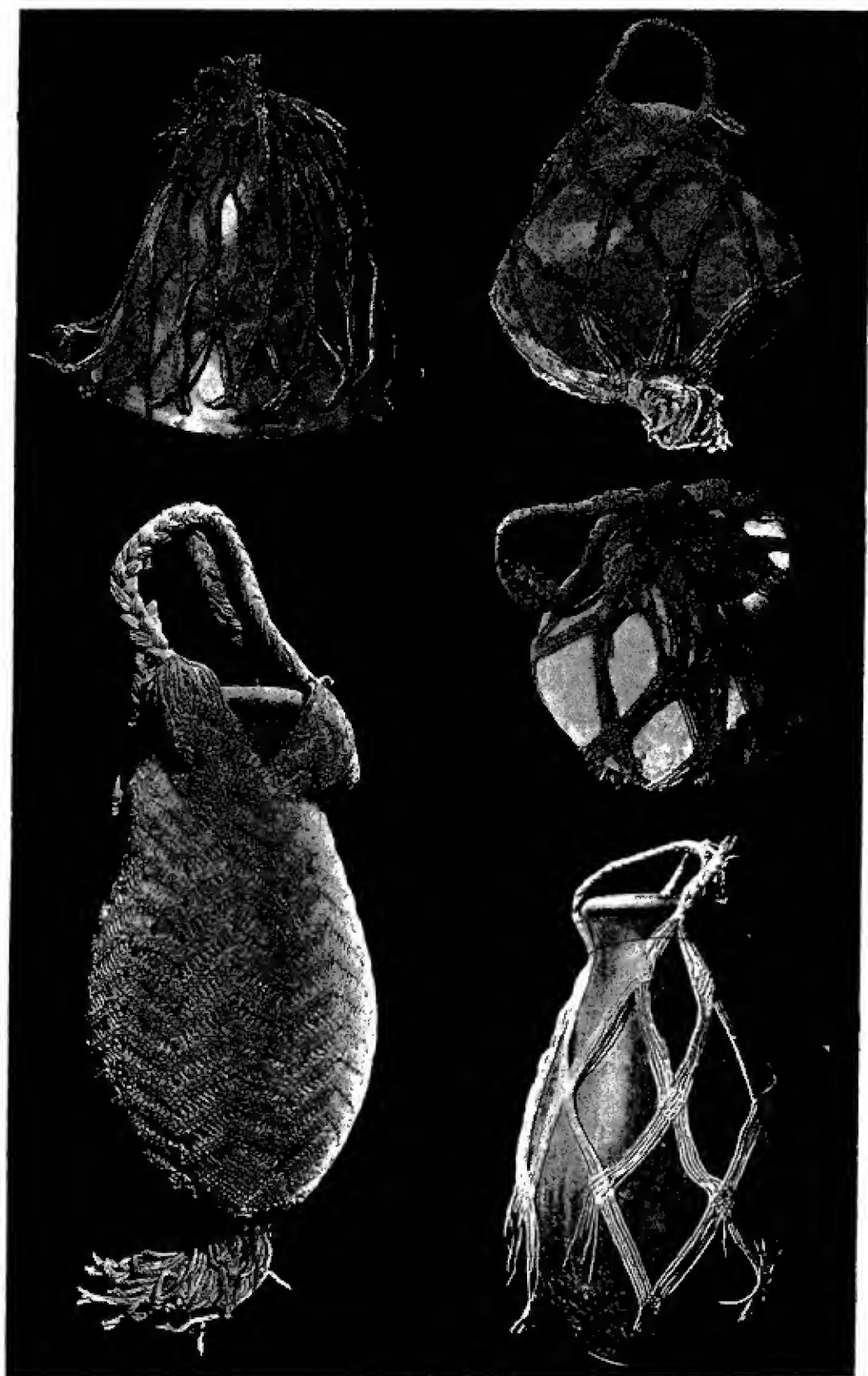
OSWALD H. EVANS.

ANTHROPOLOGICAL NOTES.

THE Royal Anthropological Institute has arranged an exhibit at the Imperial International Exhibition at Shepherd's Bush illustrating certain features in the life of primitive man, with particular reference to the "Stone Age" peoples, prehistoric and contemporary. One show case is devoted to appliances used in fishing, another to tools and the products of native industry, and a third to primitive forms of currency; another series of objects illustrates the survival of primitive superstitions among people of higher culture, and a valuable series of model dolmens is also on view, together with water-colour sketches of Oceanic peoples. The various exhibits have been lent by various Fellows of the Institute, and were arranged by a sub-committee appointed by the Council of the Institute. In connection with the exhibit is an Anthropometric Bureau, and it is hoped that some interesting statistics will be secured through its agency. But the chief object is to show how the measurement of physical and mental characteristics is performed, and to illustrate the value of anthropometry as a reliable test of physical deterioration and progress. In the bureau at the exhibition measurements are made of weight, stature, head dimensions, breadth of shoulders, and other physical characters, but the most interesting feature is the installation of mental measurements, which has been arranged under the direction of Dr. Spearman of University College. In particular may be mentioned the measurement of *perseveration* by means of a rotating colour-disc, and measurement of *attention* by McDougall's "spot-pattern" apparatus. The correlation of these characters with occupation and other *data* entered on the schedules will be possible when a sufficient number of persons have been measured.

THE death is announced of Miss E. S. Wolfe, Fellow of the Royal Anthropological Institute since 1881. Miss Wolfe left a large fortune, the great bulk of which is to be divided amongst certain scientific and charitable institutions. Under her will the Royal Anthropological Institute will receive the generous bequest of £1,000.

AN exhibition has been arranged at the British Museum of some of the more important objects collected among the Bushongo (Bakuba) people of the Congo Free State by the expedition under the leadership of Mr. E. Torday, which left England in 1907. These objects comprise chiefly specimens of wood-carving and fibre-cloth, of a quality surpassing anything yet collected in Africa; in particular, two portrait statues of chiefs, who ruled at the end of the eighteenth century, are the most remarkable specimens of indigenous art yet discovered in that continent. The expedition is expected to arrive home early in October.



STRING NETS OF THE XVII DYNASTY.

ORIGINAL ARTICLES.

Egypt: Archæology. With Plate I—J.

Petrie.

String Nets of the XVII Dynasty. By *W. M. Flinders Petrie*,
F.R.S., F.R.A.

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The past winter's work of the British School in Egypt has widened our knowledge in various ways. At Thebes much search was made in the northern valleys, hitherto neglected, and one untouched burial of the XVII dynasty was found. This is perhaps the most varied and rich burial ever brought from Egypt, and it will be preserved as an entire group in the Royal Scottish Museum, Edinburgh. The body was in a single coffin painted with wings, in blue and gold. Upon the neck was a gold collar of four rows of small gold rings, about 400 in a row. It was fastened by a gold pin slipping through four small eyelets on each end of the collar, which fitted together alternately. On each arm were two gold armlets just below the elbow. Around the waist was an electrum girdle, copied from a Nubian type made of seeds and leather. The whole jewellery weighs half a pound avoirdupois, the largest group of gold work that has left Egypt.

Outside the coffin lay a row of jars in string nets, just as they had been brought hanging from a stick. Only two or three examples of these nets were yet known, in the Cairo Museum. They vary from two to four parallel strings, each knotted with every string it crosses. The perfect regularity of the work shows how advanced the makers were in string working (*see* Pl. I—J). Two pouches with loop handles lay in the coffin, made of bead net-work, which was unknown before. A very rare object was a blue marble bowl with figures of four apes, their tails curving round to form the base. The furniture was of usual forms but fine quality. A chair is very accurately made, and still has the string seat complete. Stools, a head-rest, a decorated horn for scent, baskets, and vases of alabaster and obsidian complete this fine group.

Other work was done on the cemetery of the XI dynasty, many dozens of dated skulls were obtained and measured, a long inscription gave further detail of the conquest of Egypt at that time, and the pottery was fully studied and the dates of various types settled. Of the same age a small temple was explored on the mountain, 1,200 feet high. It proved to be for the worship of the Osirified King Sankh-ka-ra, and to have contained his seated figure as Osiris and the cenotaph which represented his past mortality while he still ruled on earth as a god. This illustrates the Egyptian conception of the deified ruler, modified from the time when he was actually slain. Other results at Thebes are historical rather than anthropological.

At Memphis the main work was clearing the palace of King Apries, of about 580 B.C. It covered two acres, the whole of which we dug out to 10 or 15 feet, the largest clearance anywhere in Egypt this year. The capitals and drums of columns showed that it had been 40 feet high in the central court, and 50 feet high in the north court. The plan is the first yet obtained of an Egyptian palace, showing it to have been on the same scale as the great Assyrian palaces. Beside much scale armour and bronzes, a fine piece of silver fitting with gold face of Hathor was found in the palace. As many of the walls descend far below the floor of Apries, it is probable that the mound, 50 feet high, consists of the earlier palace ruins. The sculptures of an earlier gateway of the palace were found, thrown aside in the fosse. This gate was 20 feet high and 7 feet wide on either side, sculptured with six great scenes of the investiture of the crown prince, of the most delicate low-relief work.

Many more terra-cotta heads of foreigners were obtained, Spanish, Greek, Jewish, Kurd, and others, like those found last year. The office of the school is at University College, London, where intending students can apply or subscriptions be sent for the publications.

W. M. FLINDERS PETRIE.

Ceylon : Religion.

Seligmann.

Note on the "Bandar" Cult of the Kandyan Sinhalese. By C. G. 77
Seligmann, M.D.

In a paper on the "Vedda Cult of the Dead," published in the *Transactions of the Third International Congress for the History of Religions*, I alluded to the practice prevalent among the Kandyan Sinhalese, that is of the Sinhalese of the central portion of the island, of canonising important men soon after their death and making offerings to their spirits, who are invoked to protect from evil and send good fortune. Such canonised spirits are known as *Bandar*, and Mr. H. Parker, late of the Irrigation Department, who has devoted special attention to this subject, writes that he has the names of considerably more than 100. "Some are included in the list as "important ancestors; others, the majority, because of their power; others because "of their cruelty or their sudden violent death. They are all classed as *Yakas* by the "Sinhalese and are generally hurtful; but some have certain protective functions, and "protect cattle and coconut trees and crops." •

The object of this note is to draw attention to certain features of this cult, and to give the invocation used in seeking success and protection from sickness from Kosgama Bandar, who appears to have attained distinction on account of his violent death, inflicted by order of the Sinhalese King. The invocation of Kosgama Bandar was obtained from one Tissahami the *Arachi* (headman), of Potuliyadde, a jungle settlement in Uva Province. Tissahami is one of a line of spirit dancers (*Sin. kapurale*), his great grandfather having been a Vedda shaman. Although this man's descendants intermarried with the local Sinhalese and adopted the Sinhalese mode of life, one man at least in each generation continued to act as spirit dancer, and the father of the *Arachi* was a spirit dancer and *wederale* (native doctor) of some note. The *Arachi*, now a man of between forty and fifty, exerts a great deal of influence over the peasants in his neighbourhood, who all recognise that he is more or less in constant communication with the spirits, to which fact his neighbours attribute much of his success. In this manner was explained the quickness with which he recently learnt blacksmith's work. I soon discovered that he was handier, quicker, more intelligent, and very much less respectful of established authority than the majority of the peasant Sinhalese with whom we came in contact.

Kosgama Bandar lived in the eighteenth century or earlier at Kosgama. He refused to pay tribute to the king, and probably headed a rebellion, which was quickly put down. He was betrayed by an adherent whom he trusted, and was tied to a tree and shot to death with arrows. He is now said to be especially helpful in litigation and in recovering lost cattle; but, in fact, he is of assistance in every way.

In order that some of the references contained in the invocation may be clear it is necessary to point out that the dead are faced by the initial difficulty of communicating with the living. They have no power to appear to them in dreams or visions, and, indeed, can only make their desires known in the first instance by causing sickness or by means of certain animals. It seemed that the spirits usually adopted the latter expedient, the animal being a "sending," and the rank of the deceased being indicated roughly by the animal sent, in which, however, the spirit of the deceased is not immanent. The lion is said to be the highest; then comes the elephant; the leopard indicates the spirit of a rather less exalted person.

Before the dead can manifest their power in this manner or in any way interfere in human affairs they must obtain the permission of one or more high gods of whom the most important is Skanda, one of the four guardian deities of Ceylon, "the Kataragam God" as he is called by the jungle-dwelling Sinhalese, on account of the position of his famous temple. How the spirit obtains this permission is not clear, but I was told that the early signs of the power of the deceased are always

in some way connected with the Kataragam God, and when Kosgama became a *Bandar*, a leopard sent by him rode round the Kataragam temple on the back of one of the god's bulls, i.e., one of the *tavilam* bulls, bringing provisions and salt to the temple.

Having once obtained permission from the Kataragam God to accept offerings and to help or injure men, the spirit indicates his desire to be revered as a *Bandar* at a shamanistic ceremony which is held when the doings of the "sending," or other mysterious events, suggest that one of the dead is trying to communicate with the living. A spirit-dancer then invokes the new *Bandar* and becomes possessed by him, and the *Bandar*, speaking through the dancer, explains fully who he is, how he should be invoked, what offerings should be made to him, and the benefits that he will confer in return.

I am indebted to Mr. Parker for the following transliteration and translation of the invocation to Kosgama Bandar. Two words, *Kiteyilā* in the sixteenth verse and *Kitula* in the seventeenth and eighteenth are left untranslated; several mistakes were made in writing down the song and afterwards corrected and there may be uncorrected mistakes in these words. Explanatory remarks are enclosed in [], words inserted in order to make sense are in ().

1. *Vidā gamadin pāpu e krittiiyaya*
Numudā inapiṭa tiyei kiritiiyaya
Sudā nan asu piṭa karasiciyaya
Vidāgamarāḷaṭa saṭtiioiceya
2. *Kosgamarāḷaṭa nisi Atapattu*
Dura yanavū daeka lan karagattu
Rahas kiyanneṭa lan karagattu
Rahas polēdi sadi karagattu
3. *Ran kandaṭu lā kanda diya nāvōpū*
Pas kaṭu sandunem dara ekkarapū
Patkaṭa mūnaṭa waesun wasōpū
Kosgama ran kanda mele sadawōpū
4. *Ran kanda malakada diya nāvōlā*
Sandun kapuru pinidiya ekkaralā
Ran saluwak gena mūna wasōlā
Kosgama ran kanda dawoti āṇḍālā
5. *Aendami sangalak yakun naṭanneta*
Baendami paṭiya ina yayi weennaṭa
Paennemi Kola(m)baṭa saraba uganneṭa
Waendami Kosgama rajā wasinneṭa
6. *Welē actun wela muda nawatannē*
Malē ba(m)baru lesa senaga āḍannē
Peḷē bohoma dura siṭa pawatinnē
Balē hondayi Kosgama deviyannē
7. *Nā gasa nā ruḷa nā seowunaelē*
Bō gasa bō ruḷa bō seowunaelē
Tuṇḍō-atthana atu seowunaelē
Maenik rajāgē puṭu seowunaelē
8. *Maenikah sorakan karapu lu bandiya*
Sorakan nokalot nowaṭiyi bandiya
Ridi makā wata bubulu paelaendiya
Maenik rajā allan ran bondiya.
9. *Maenik rajāgē ninda haēḷiyā*
Āṇḍā bambaru ron ganiti malēyā
Maṭa wicarak aeyi anaḍu kalēyā
Maenik rajoyi naḍuwak nolabēyā
10. *Maenik konṭa baendi lesṭa wipullā*
Anik yakun desa no bana siyallā
Sonikkiiyaṭa karakaewena siyallā
Maenik rajā waenda ganimu siyallā
11. *Maeniken ipudunu tedaya asannē*
Anikut yakkuṭa saruno karannē
Hanikaṭa tuṇ lowa diwas balannē
Maenik rajo uḍa buwanē ennē
12. *Palingu maenik yasanē satapennē*
Palingu maenik diwa salu palandinnē
Palingu maenik mālē palandinnē
Palingu maenik ran kaḍu wadarannē
13. *Maenik baendapu puṭuwē waēḍa innē*
Maenik baendapu jaya wēwaēla aeragannē
Maenik baendapu ran bondi darannē
Maenik rajā uḍa buwanen ennē
14. *Kataragamaṭa waenda pasnalā kala wiriya*
ahapannē
Gonuge piṭaṭa divi nangā maluwā maēḍaṭa
wadiminnē
Maluwā maēḍaṭa waēḍa-mowalā toda ana-
ṭaka pennannē
Mewan tedati Kosgama Devi ganān gamuwā
waēḍa innē
15. *Āwipatayindud depatayi Kosgamarāḷaṭa*
waliyē
Disā hatayima dili paṭayi Kosgamarāḷaṭa
waliyē
Bubulu haēṭayi bondi haēṭayi e allana ran
paliyē
Gini kukulayi panduru haēṭayi e Nilat
taṭwa baeriyē
16. *Ahashē taru kelineyi kiteyi tā taru yaṭa*
kiminda eteyi
Poluwē wanli kelineyi kiteyi tā waēli yaṭa
kiminda eteyi

Mudē raela kelineyi kiteyi tā raela yaṭa
kiminda eteyi
Kosgama Deri waḍineyi maḍuwaṭa balanḍa
Deri waḍineyi

17. *Allana kaḍuwa mini bandala tiyennā*
Dorakoḍa kitula raṇ bandala tiyennā
Maeniken pānagē aeti tiyennā
Kosgamarāla yasanē nidi pennenā

18. *Allana kaḍuwa mini baendūwāt boruyi*
Dorakoḍa kitula raṇ baendūwāt boruyi
Maeniken pānagē aewilenawāt boruyi
Kosgamarāla yasanē nidi et boruyi

19. *Ran manden bat kālā tiyennā*
Ran kendiyeṇ diya bilā tiyennā
Maeniken pānagē aewiti tiyennā
Kosgamarāla yasanē nidi penennēnā.

1. The crime at Kosgama, that deed
 Done to Vidagamarala,
 Who had a never-removed *kris* at his waist-belt,
 And was accoutred on a horse called "white."
2. The base Atapattu of Kosgamarala
 Having seen him going from afar called him near;
 To confer secretly he called him near;
 In that secret place he behaved treacherously [*i.e.*, seized him and handed him
 over to the King].
3. Having placed gold on the body [? in the mouth], the body was washed with
 water,
 Five parcels of sandal-wood, and firewood, were collected,
 A piece of cloth was placed as a covering for the face;
 The golden body of Kosgama in this way was made ready [for cremation].
4. They washed impurities from the golden body;
 They collected sandal, camphor, and perfume;
 They brought a golden cloth and covered the face;
 And having wept they burn the golden body of Kosgama.
5. I dressed (as though) for dancing to a couple of Yakas;
 I tied on my belt in order to contract my waist;
 I bounded to Colombo to learn (to jump like) a grasshopper;
 I (then) paid obeisance for the Kosgama king to dwell here.
6. In the paddy field the tusk elephants, pleased with the field, are stopping;
 Like *bambara* on the golden flower the multitude are crying.
 The family descends [*lit.* continues] from very distant (times);
 The power of the Kosgama God is great.
7. (Like being) in the Na shadow of the Na tree, the Na tree;
 (Like being) in the Bo shadow of the Bo tree, the Bo tree;
 (Like being) in the shadow of the branches of the Thorn-apple;
 (Is being) in the shadow of the seat of the Gem King.
8. The bracelet (*bandiya*) is a gem which it is said was stolen.
 If it were not stolen it would be of no value, the bracelet;
 It is ornamented round with silver bosses,
 The golden bracelet which the Gem King carries.
9. Having gone to the jungle owned by the Gem King,
 Having hummed [*lit.* cried] the *bambara* take pollen from the flowers.
 Why should he behave unjustly to me only?
 There is no gain in a law suit against the Gem King.
10. Like a gem fixed at the end [of the spire of a *dagoba*] is the Great One
 In the direction of the other Yakas not a sound is heard;
 Speedily all turn away [the new God having supplanted them].
 Let us all worship the Gem King.

11. They hear of the power derived from the gem,
And he makes the other Yakas hasten away.
Quickly he looks at the three worlds with his divine eyes;
The Gem King comes through the sky.
12. He sleeps on the couch set with crystal gems;
He wears a divine cloth adorned with crystal gems;
He wears a necklace of crystal gems;
He carries a golden sword set with crystal gems;
13. He is seated on the gem-set chair;
He takes a cane of victory set with gems;
He carries a golden bracelet set with gems;
The Gem King comes (thus) from the sky [lit. upper abode].
14. Hear of his prowess done when he came [lit. jumped] down to worship at
Kataragama,
While the leopard, having mounted on the back of the bull, was going to the
middle of the enclosure.
By causing it to come to the middle of the enclosure he shows his power.
The Kosgama God who possesses such powers as these visits [lit. is present
at] a number of villages.
15. There is two-fold prosperity at the (festival) day of Kosgamarala;
There are (people with) brilliant silk clothes from even seven districts (present)
on the (festival) day.
There are sixty bosses and sixty ornamental rings round them [lit. *bondi*—
fetters] on the golden shield that he carries.
Cannot (you give) more than a red cock [lit. fire (coloured) cock] and [sixty
offerings for the Chief?
16. The stars gambol in the sky, . . . he will dive beneath the stars.
The sand gambols on the earth, . . . he will dive beneath the sand.
The waves gambol on the sea, . . . he will dive beneath the waves.
The Kosgama God comes to the *maduwa*, the God comes to look (at the
offerings).
17. Bells are fixed on the sword he holds;
Gold is overlaid on . . . his doorway;
His lamp receives its light from gems;
Kosgamarala sleeps on his couch.
18. It is untrue that bells have been fixed on the sword he holds;
It is untrue that gold has been overlaid on . . . his doorway;
It is untrue that there is any shining of his lamp from gems;
It is also untrue that Kosgamarala sleeps on his couch.
19. (His) rice has been eaten off (his) golden plate;
(His) water has been drunk out of (his) golden drinking pot;
There has been shining of his lamp from gems;
Kosgamarala has slept on his couch.

1, line 3.—Mr. Parker points out that the *kris* dates from ancient times in Ceylon. "I found the greater part of a blade of apparently pre-Christian Age at Tisea (Southern Province). There is a true Sinhalese weapon of this type, the *itaya*, a sort of "assegai, which has similar bends in the blade, and there is a spear in the British Museum with a wavy blade." My field interpreter simply translated "hunting-knife."

2, line 1.—*Atapattu*, an official title.

5.—This verse describes the preparations made by the spirit dancer in order that he may do his part worthily.

6, line 1.—Tissahami explained that the elephants of the deceased became possessed by his spirit, but Mr. Parker considers this line refers to the people being too full of grief to drive the wild elephants out of their fields.

6, line 2.—*Bambara* is the rock bee (*Apis indica*); the sound of weeping is compared to the humming of many bees.

8, line 1.—Mr. Parker writes: "the meaning of *bandiya* is doubtful, there were " sixty among the decorations of the shield described in verse 15; these might be " raised rings round each of the bosses on it."

8, line 2.—The stealing of the gem refers to a legend of which my informants did not know the details. It seemed that this line referred to a gem by the aid of which the future might be predicted; for some cause the gem lost its lustre and power.

9, line 3.—Mr. Parker writes: "This line means that he will treat all alike, " but in any case it is useless to quarrel with him."

14.—This verse refers to the deeds by which Kogama manifested his desire to be treated as a *Bandar*.

15, line 4.—The usual meaning of *gini kukula* at the present day is "guinea-fowl," but this is inapplicable in the invocation.

16, line 4.—The *maduwa* is the bower-like structure to which the *yaku* are called when they are invoked.

18.—This verse consists of the remarks of an imaginary doubting listener, and the words "it is untrue" mean no more than "is it really true?"

19.—This verse answers the doubter; further details are given, and the last two lines reiterate two of the statements on which doubt has been cast.

C. G. SELIGMANN.

Sociology: Exogamy.

Exogamy. By A. Lang.

Lang.

78

The problem of exogamy is always with us, and will be revived by Mr. Frazer's forthcoming book. I have been obliged to look into the question again, and especially to examine the papers by Mr. Crawley and Mr. Thomas in the *Festschrift* for Mr. Tylor (*Anthropological Essays*). I note that Mr. Crawley (pp. 51, 52) quotes Mr. Atkinson's views (*Primal Law*) from a summary by Mr. Thomas. Where Mr. Thomas gave it we are not told, nor do I know. "This rule" (no marriage for the offspring of the "Cyclopean" sire) "crystallised into an instinct." "This," says Mr. Crawley, truly, "is a psychological impossibility" (p. 52). But where did my cousin say that the impossibility occurred?

Mr. van Gennep attributed the same opinion about an "instinct" to Mr. Atkinson in *Mythes et Légendes d'Australie*, p. 116, note 2). I then re-read Mr. Atkinson's *Primal Law*, and could find therein no such assertion. Mr. Thomas (in *Kinship and Marriage in Australia*, p. 65) summarises Mr. Atkinson's view thus: "This " law . . . came in the process of time to be a *traditional rule of conduct*, " *almost an instinct*." Mr. Atkinson regarded it as "a traditional rule of conduct." That he said "an instinct" is a statement which I could not verify, and I wish that instinct made us give exact references to an author's own work.

Mr. Crawley seeks "a sounder psychology" in a book by Mr. Havelock Ellis, which I never saw. There is "a normal failure of the pairing instinct in the case of " brothers and sisters, or of boys and girls brought up together from infancy. The " sensory stimuli of vision, hearing, and touch have been dulled by use," and "deprived " of their potency to arouse the erethistic excitement," and so forth. Yes, in civilised family life, but not in savage life, where the brothers and sisters are kept apart and

have rules of avoidance, which romance calls on them to break, making their situation most stimulative.

Mr. Thomas writes, in the same book (p. 345), "as Mr. Lang has pointed out, if there is one thing more than another which should promote incest, on this theory, it is the separation of brothers and sisters long before puberty, which is such a characteristic feature of some primitive societies . . . we are entitled to ask why the custom of brother and sister avoidance arose at all if it removed the greatest safeguard against incest," namely, constant familiarity from infancy. "If hearth-mates develop an instinct" (I do not adopt the phrase) "against sexual relations with each other, it would be unnecessary to separate brothers and sisters for reasons of sex; and it would never occur to anyone to propose that they should be separated to provide against non-existent dangers."

Mr. Crawley, I think, will reply that they were separated for some mystic reason of "sexual tabou," but the obvious explanation is that of Mr. Thomas. Mr. Crawley also explains "the legal prohibition" against adelphic unions as rising from "a naïve desire to, as it were, assist nature, to affirm what is normal," to bolt a bricked-up door. But this does not explain separation and avoidance.

But why prohibit marriages of non-consanguineous "brothers and sisters" in the phratry, people in mere social classificatory relationships? "It is due to tribal solidarity and is engineered by identity of names" (p. 54). I would say "due to the idea that all persons in the phratry are, by now, *legally* akin."

Mr. Howitt's theory, or at all events Mr. Frazer's, is that we have every right to assume that "the founders of exogamy in Australia" (who legislated merely to prevent *consanguineous* marriages) "recognised the classificatory system of relationships, and the classificatory system only" (*Folklore*, June 30, 1904, p. 177). But before the "reform," before the phratric division produced its effects, where were the classificatory relationships which alone the reformers of consanguineous relationships recognised? Either they did not exist and could not be recognised, or must not all members of the *tribe*, of a certain status, have been classificatory or tribal brothers and sisters? If so the reformers had to bar the marriages of all of them, within the tribe, make the tribe exogamous, and find another intermarrying and exogamous tribe, to be the other phratry. If so no exogamous partition was made within the tribe; *two* tribes made alliance and *connubium*, which is practically my own theory.

Mr. Crawley does not believe in the reformatory division of the tribe. He appears, however, not to observe that, on Mr. Atkinson's theory, the members of his original Cyclopean family were under greater temptations than those of Mr. Havelock Ellis's family, who are brought up in constant familiarity between boys and girls; for Mr. Atkinson postulates hostility between all his groups. Boys and girls, to-day, meet plenty of others, not of their own family, and the superior attractions of these act as lightning conductors of the sexual emotions. The Cyclopean brothers and sisters having no such distractions, would most certainly have gone the way of all flesh had the sire not expelled the boys.

I am not wholly wedded to Mr. Atkinson's very ingenious theory, for really we do not know the manners of truly primitive man. But I do think that if, from scarcity of supplies, he lived in tiny family groups, with hostile neighbours—no accessible lightning conductors—the seniors would forbid to the juniors love-affairs within their circle, for these meant the cutting of fraternal throats by fraternal flints; blood feuds round the hearth, and the ruin of the party.

Mr. Crawley begins with "two friendly fire circles, consisting each of father, mother, and one or more children." The children marry out of their own family, for they are *blasés* to the attractions of their brothers and sisters, and into the other family, and "the two connected families will keep together." If round the same

hearth, the children will become *blasés*, on this theory, I fear, but they seem not to have the same hearth (p. 56). Moreover, given one family, apparently isolated, and by nature exogamous, whence came the other two families? Where did the children pick up mates? Are all families in the region on friendly terms all round? If so, why are only *two* families posited as the result of the one family? There might be half a dozen. If we only knew who the original two parents were, how they met, and so on, it would be easier to understand. I do not understand the *provenance* of the original family, which itself was an union of members of two families. If they have only three sons, three families and the original family co-exist, and thus I do not see why the intermarrying was always on a dual system. The supposed original dual family took women from other groups, and *vice versa*, I suppose, so we have, in fact, many families intermarrying, not eternal intermarriage between descendants of the original two families only. It may be due to my want of imagination, but I keep wondering who the parents of the one original family were, and whence they came together, unless we start with Adam and Eve. Even so, Cain and Abel must have married their sisters, *faute de mieux*.

Mr. Crawley anticipates the question, "Why should they" (the two original families) "continue to marry?" and he answers, "Why not?" Why not, indeed? The question is *why*, if families all around are friendly, and if they are hostile, had not the founder of the first family, the source of the other two, to fight for his mate? Mr. Crawley thinks that he had not, "all the facts tend to show that primitive man" "relied for his wives on friendly arrangements as a rule." Well, if there were several friendly families within a walking distance, or even two families, there is no reason why Mr. Crawley's two families should for ever continue to intermarry, and make a solid system out of the arrangement, the phratry system, all but universal in Australia.*

Either Mr. Crawley or Mr. Frazer seem to differ on a point of fact. Mr. Crawley says, "The children of two brothers may not marry" (intermarry) "nor the children" "of two sisters. The children of a brother and sister may" (p. 57). Mr. Frazer says " . . . the system was devised . . . to prevent the marriage of" "a man's children with his sister's children" (*Folklore, ut supra*, p. 178). These must be different systems, and each needs explanation.

I do not dwell on other points in which I think Mr. Crawley has misunderstood me, as I certainly do not understand his theory. It "excludes from an unwarranted" "pre-eminence the system of totemism," but does it account for one totem to one totem marriage? Probably it does by simply supposing both of the two original families to have, somehow, got a totem. But, as has been said, I do not see why these two families, now duck and dog, continued to intermarry *exclusively*, and then gave up their exclusiveness, as they have done, except among the tribes from the northern Urabunna to the Barkinji.

Mr. Thomas, contrary to both Mr. Atkinson and Mr. Crawley, supposes "father-daughter aversion, expulsion of the young females, temporary exit of the young males, and then later return with brides from another group" (*Anthropological Essays*, p. 553).

The expelled young males would easily pick up expelled young females! "In" "the expulsion of one set of females and the introduction of another we have the" "principle of exogamy; and if we suppose that only two communities were within" "such distance of each other, we have the simplest possible form of exogamy, the" "intermarriage of two and only two groups." Surely there is but sketchy evidence for father-daughter aversion in the higher mammals, only that of the Khirgiz and

* Mr. Crawley says "the phratry names are usually unintelligible." Out of fifty-eight known to Mr. Thomas, "nineteen can be translated with certainty, and one can guess at the meaning of some half a dozen more" (Thomas, p. 53). It is long odds that the unknown forty, roughly speaking, are of the same sort as the known score.

Aristotle (*Anthropological Essays*, pp. 349, 350), for semi-tame horses and for tame camels. Two and only two families within accessible distance is also an improbable postulate, which (*Anthropological Essays*, p. 206) makes it hard to understand one totem to one totem marriages; these, as Mr. Thomas says, "are verifiable but unverified" (Howitt, *Native Tribes of South-East Australia*, pp. 189-194, Spencer and Gillen, *Central Tribes*, p. 60, and note L, *Northern Tribes*, p. 71).

Verily we have not solved the puzzle of exogamy, and now I hear from South Australia, that some tribes have *exogamous* phratries, the children taking the name which is not that of the parent's phratry!

A. LANG.

India : Archæology.

Seton-Karr.

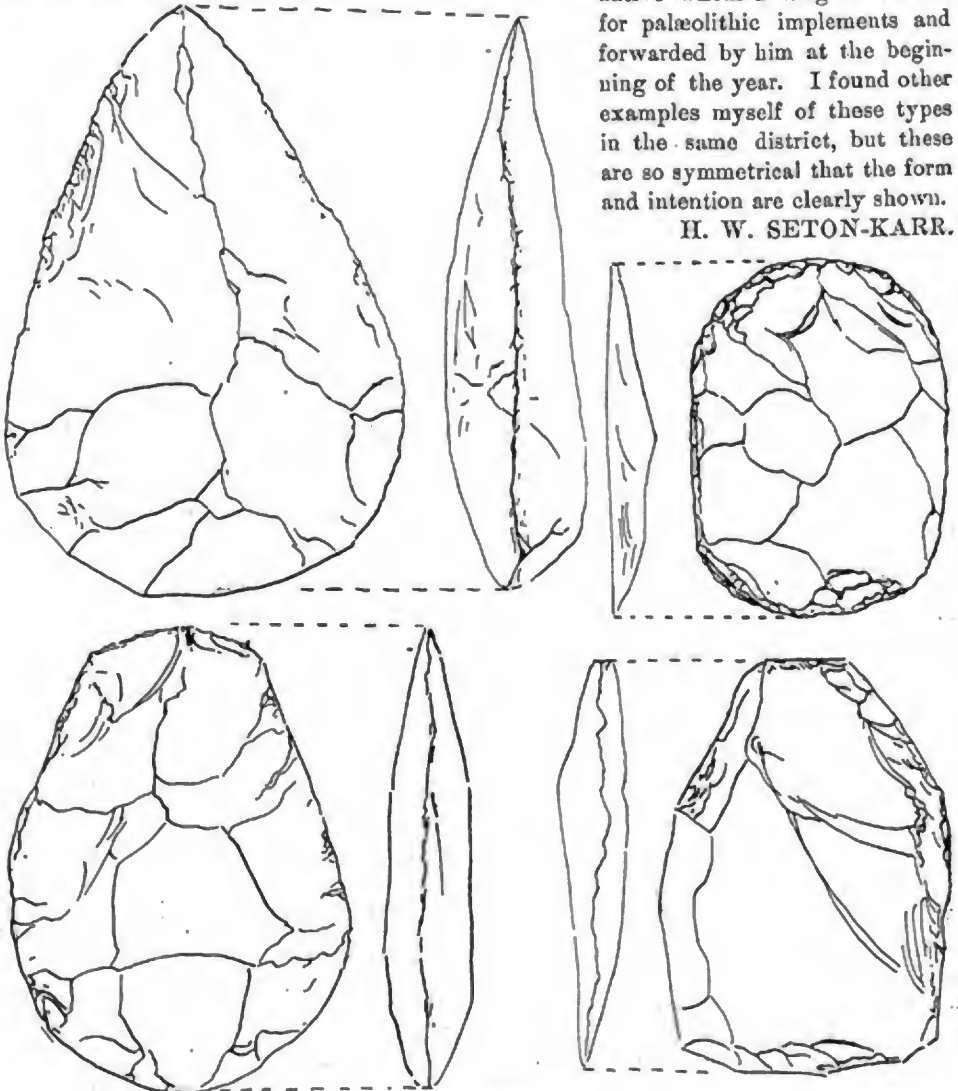
Some recent Indian Palæolithic Implements. By H. W. Seton-Karr.

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Four implements are figured from the valley of the Penaar River running into the Bay of Bengal to the north of Madras. They were recently picked up by a

native whom I taught to look for palæolithic implements and forwarded by him at the beginning of the year. I found other examples myself of these types in the same district, but these are so symmetrical that the form and intention are clearly shown.

H. W. SETON-KARR.



REVIEWS.

Africa, East.

Weule.

Wissenschaftliche Ergebnisse meiner ethnographischen Forschungsreise in den Südosten Deutsch-Ostafrikas. Von Dr. Karl Weule, Direktor des Museums für Völkerkunde und Professor an der Universität zu Leipzig. (Mitteilungen aus den deutschen Schutzgebieten. Ergänzungsheft, No 1.) Berlin: Mittler, 1908. Pp. x + 150. 33 x 25 cm. Price, 3 marks. 80

The scene of Dr. Weule's researches during the latter half of 1906 was the region comprised between the Lukuledi and the Rovuma, the greater part of which is occupied by the Makonde Plateau. Here, owing to the wars and wanderings of several generations, the slave trade, and the settlements of freed slaves at the mission stations, the population is, as so often in Africa, of an extremely mixed character. It is, however, so far as one can tell, a mixture of indigenous stocks. No extraneous elements would appear to have been imported beyond the fraction of Arab blood (whatever that may amount to) contributed by the Swahilis from the coast. The oldest inhabitants seem to be the Makonde, who are closely allied to, if not identical except in name with, the Mavia on the other side of the Rovuma, and also to the Wamaraba on the coast near Mikindani. The Makua, driven from their homes in the south by the Walongwe, and afterwards by the Angoni, impinged upon the Makonde from the south and south-west, and a further westward immigration of Yaos took place after this, and is still going on. Besides these, we have the Wamwera, inland from Lindi, of whom Dr. Weule saw comparatively little; the Wamatambwe on the Rovuma; a colony of freed Wanyasa (Anyanja) slaves at Masasi, and a few villages of so-called Angoni near Nchichira.

The value of Dr. Weule's results is somewhat unequal. For the excellent illustrations, reproduced from photographs and drawings, there can be nothing but praise, and in all that relates to externals he may be said to have met with the success generally obtainable by a patient and painstaking collector. But when we find how dependent he was on interpreters and on a somewhat elementary knowledge of Swahili; when it is further taken into account that his expedition, even when not actually accompanied by a Government official, had more or less of an official character, and that his methods, as incidentally revealed both here and in the more recently published *Negerleben in Ostafrika*,* were not always of a conciliatory nature; it is evident that his accounts will require careful sifting. It is somewhat surprising that he should have been allowed to see so much of the *unyago* festivities; but here, too, to a certain extent, official pressure was at work. The account of the Makua *echiputu* on pp. 117-119 in particular must be received with caution. Without pronouncing any opinion as to its inherent probability or otherwise, it is impossible to overlook the fact that it was obtained more or less under compulsion, from a woman detained to work out her husband's taxes. (In *Negerleben*, p. 371, the author relates a further way in which he took advantage—quite unjustifiably it seems to us—of this woman's difficulties.) The statement that her assertions were subsequently confirmed by another Makua scarcely by itself sufficient evidence in a case of this sort.

Our confidence in Dr. Weule is not increased by occasional indications of an *a priori* attitude towards his subject, as when he says, "Schon das Vorkommen der 'Gesichtsmaske in Ostafrika wirkt befremdend.'" Why? It is only a further development from the animal masks used in the *Chinyau* (= Yao, *unyago*) dance of the Mang'anja and Achewa (see Fon, *Traversée de l'Afrique*, p. 40, and the illustration), which, again, strongly suggests the *Nadro* of the Bushmen as figured in their rock-paintings and described in the traditions preserved by Stow and others. From the use of

* Unless, indeed, we are to suppose that the latter contains a certain admixture of "yarns" to support its character as a light and popular work. We own to suspicions of one or two passages.

actual heads to that of wicker or wooden masks imitating them is but a step (cf. Scott, *Mang'anja Dictionary*; "The masks are made of *maperi* [i.e., maize or sorghum] stalks peeled and strung together, or of wood, or earth, or skins.") Both human and animal masks are represented in Dr. Weule's collection, so that the further transition is illustrated without difficulty. Of special interest is No. 2, Plate 21, described as "Tanzmaske der Makonde, den Hasen darstellend." We might here have a clue which, if followed up, would help us to understand the position of the Hare in Bantu folk-tales, and perhaps, ultimately, in Bantu mythology. But in the text it seems to be classed among the *Shetani* or "devil" masks, of which no very satisfactory account is given. They are all horned and bearded; the names (if really current, and not merely used by Swahili-speaking natives in their explanations to Dr. Weule) must be imported; whether the form is likewise primitive or modified in accordance with imported ideas we cannot know without further inquiry. He remarks that in the mask in question, which, unlike the others, is entirely white, the horns rather resemble hare's ears, and therefore it is possible that "diese Maske in der Tat den Reinecke Fuchs 'Afrikas, nämlich den Sungura, darstellt.'" Dr. Weule assumes that Moslem influence is out of the question here, because Islam forbids plastic representations. Whether his conclusion be right or not his argument will hardly hold, for all Moslem countries are not equally orthodox in this respect—cf. what is said by M. Bel (*La Population Musulmane de Tlemcen*) as to the religious pictures found in Algerian marabouts' shrines.

Another instance of a dangerous inclination to *a priori* judgments occurs on p. 114. Speaking of secret societies, Dr. Weule says he had hitherto thought this institution inconceivable in East Africa (*für Ostafrika einfach undenkbar*), and still does not believe in its existence among the Makonde. It is a somewhat rash conclusion to arrive at after a stay of a few weeks. The Nyasaland Yaos have an organisation called *seketera*, of which my informant discovered the existence after eight years' residence in the country without the slightest suspicion of such a thing. Moreover, it may be doubted whether the stilt-dance is quite so isolated a phenomenon as our author thinks. Mr. Sutherland Rattray (*Chinyanja Folklore*, p. 179) speaks of it as part of the ordeals undergone by men initiated into the secret society connected with the *Chinyau*. It must be remembered, too, that we know little or nothing concerning the initiation and allied ceremonies of the Bemba, Lunda, Luba, and other peoples west of Nyasa.

In the section on toys and games (pp. 91–95) we think that the author's generalisations as to the absence of organised games (though this is not so clearly stated as in the *Negerleben*) and lack of enthusiasm in play are a little too sweeping. It is difficult to identify the passage quoted from Livingstone in support of his view, especially as no reference is given. The nearest we can find is *Last Journals*, II, 227: "In many parts one is struck by the children having so few games. Life is a serious business, and amusement is derived from imitating the vocations of the parents—hut building, making little gardens, bows and arrows, shields and spears. Elsewhere boys are very ingenious little fellows, and have several games; they also shoot birds with bows and teach captured linnets to sing"—going on to enumerate various other toys and pastimes. It cannot be said that this is fairly represented by "Schon Livingstone klagt vor einem Menschenalter über die sichtliche Langweile, ja man möchte sagen die Blasirtheit mit der die Wanyamwezikinder sich in Strasse und Hof herumdrückten; nichts von Begeisterung, nichts von der alles vergessenden Hingabe wie sie unseren Kindern so erbeigentlich ist." This may seem a trifle, but such looseness of quotation scarcely inspires confidence.

We see no necessity for Dr. Weule's assumption that the two forms of top figured in Plate 28 (Figs. 8, 9, and 10) are necessarily borrowed from Europe. The *nanguli* and *nagogo*, large whipping-tops, described by the Rev. D. C. Scott (see *Mang'anja Dictionary*, s.v.) eighteen or twenty years ago can hardly have taken root during the

short interval which had elapsed since the establishment of the mission in 1875, and the Yao top (No. 10), though similar in principle to our humming-top, has the peg for winding the string below instead of above, and may well have been evolved on the spot. With regard to the "diabolo," Dr. Weule seems to have overlooked the passage in Cameron's *Across Africa* (II, 91), which is quite sufficient to dispose of his theory. As to his so-called "telephone," it resembles a small kind of friction-drum, and we should not be surprised to learn that the use ascribed to it by Dr. Weule was an after-thought, possibly suggested by some European.

Dr. Weule's linguistic collections are, we understand, being examined and analysed by Professor Meinhof, and will doubtless see the light later on. But we own that the specimens given here and in *Negerleben* do not encourage us to hope for any great additions to Bantu linguistics. The Yao *ndondosha* song on p. 103 is unintelligible without considerable correction of the text. *Ya chimwene*, for instance, should probably be *achimwene*, "chief," and the translation overlooks the fact that *ndondosha* (as apparent from the pronouns) is in the plural throughout. We doubt whether *kululu wakongwe* could mean "the girl from Ilulu"; *wakongwe* is certainly a plural. The *ndondosha*, by-the-bye, deserves further investigation; it is a "fetch" similar to the Zulu *umkovu*, a corpse resuscitated by wizards for their own ends.

The phonograph records of native melodies brought back by Dr. Weule have been treated by the Psychological Institute of the Berlin University, under the superintendence of Dr. Von Hornbostel. They have, however, been the subject of a lengthened controversy carried on in the pages of *Globus*—see also Dr. Von Hornbostel's article in the last number of *Anthropos*—into which, fortunately, we need not enter here.

A. WERNER.

Religions.

Marett.

The Threshold of Religion. By R. R. Marett, M.A. London: Methuen, 1909. Pp. xix + 173. 19 × 13 cm. Price 3s. 6d.

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The avowed object of these collected papers is critical and classificatory. Mr. Marett is not alone in thinking that animism, as a master key, fails to unlock several doors of the crypt of religious origins.

In the first of these suggestive papers he inquires whether there may have been some religious feeling or thought previous to or back of animism. The type of the latter he finds in the spirits of the dead. To the question: "How came an animistic colour to be attached to a number of things not primarily or obviously connected with death and the dead?" he answers, that "in response to . . . the emotions of 'Awe, Wonder, and the like, . . . there arises in the region of human thought a powerful impulse to objectify and even personify the mysterious or 'supernatural' something felt, and in the region of will a corresponding impulse to render it innocuous, or better still propitious, by force of constraint, communion, or conciliation. *Supernaturalism*, then, as this universal feeling taken at its widest and barest may be called, might, as such, be expected to prove not only logically but also in some sense chronologically prior to animism, constituting, as the latter does, but a particular ideal embodiment of the former."

The proof, however, of this priority does not seem to be forthcoming. He quotes some examples of awe in action where the object is vague; but the vagueness of the object is no proof that the attendant emotion in the subject is prior to the belief in spirits. He speaks of such objects as Powers. "Not all Powers are ghosts and spirits, even if they tend to become so." In the case of a thunderstorm there is certainly no need to presuppose a spirit; nor is there any process from the abstract to the concrete if such a phenomenon be prior to the development of a spirit of the storm.

But it is not clear how or why such a Power should be objectified or personified

later, still less why awe should start the process of objectification or personification. If we say that emotion is the origin of religion, well and good; there is nothing more to say. But emotion in itself cannot produce the idea of soul or spirit, nor does it foster their production. It apparently amounts to this: some phenomenon is "supernatural." Why? Because it inspires awe. Why does it inspire awe? Because it is supernatural.

Such emotional processes are neither prior to nor subsequent to animism. They are parallel in time and in origin; there is no real causal connection. The term pre-animistic, therefore, begs the question.

There are several appeals in the course of the volume to psychology. Now the science of mind is able to throw a flood of light on the origins of animism, and therefore of animistic religion, but it supplies no warrant for a pre-animistic religion of awe. It would ask, What causes the emotion? The answer, "Anything super-normal, anything which defeats reasonable expectation," is no answer, because it omits the most important part of the psychical process, all that comes between the object and the final result (the emotion) of the impact of object and subject. The complete answer would explain in one formula all cases of awe in the presence of "Powers" and all cases of recognition of spirits.

Several phrases invite psychological criticism. Such are "the horror of a human corpse instilled into man's heart by his instinct of self-preservation," "as regards delirium, epilepsy, and kindred forms of seizure, the patient's experience of hallucinatory images, combined with the bystanders' impression that the former is, as we say, 'no longer himself,' would, I think, well nigh immediately and directly stamp it as a case of possession by a spirit." In the latter instance, what are the hallucinatory images of epilepsy? and what have they to do with the patient's possession by a spirit?

His criticism of the Frazerian doctrine of the relation of magic and religion as of merely abstract usefulness and reality is well argued. That the prayer is evolved from the spell is, however, an unnecessary assumption, not to mention its apparent yielding of the Frazerian position.

In his criticism of the theory that taboo is a negative magic, he again has recourse to the "mystery" suggestive of awe, which he regards as the chief material of religion. Taboo is "a mystic affair," and is a result of experience of phenomena that are "normally abnormal." He describes it as "a negative *mana*." This essay is, perhaps, the most successful in the volume. As having nothing to do with the genesis of spirits the theory is not handicapped from its start.

The proposal to make *mana* a category of comparative religion is not new, but it is judicious. "Taboo is the negative mode of the supernatural, to which *mana* corresponds as the positive mode"; this is a convenient formula, but the author puts it forward as "a minimum definition of religion." In so doing he posits the priority of the *impersonal* forms of the supernatural. This seems to misunderstand the essence of animism as the doctrine of souls, not in the narrow sense of human and humanised souls, and also to involve a process from the abstract to the concrete.

The last essay in the book treats of Comparative Religion as a branch of Sociology and of Social Psychology. It contains some interesting criticism of various schools and various points of view. "There seems to be good reason to respect the British tradition which ordains that Psychology must preside over the investigations of 'Comparative Religion.' If only the presiding science were the science of the psychologists!"

The volume is full of interesting *aperçus*. Mr. Marett's critical instrument is keen and well manipulated, but, perhaps, does not always operate at the critical spot.

A. E. CRAWLEY.

Thuringia: Archæology.

Goetze.

Die vor- und frühgeschichtlichen Altertümer Thüringens. Herausgegeben von Prof. Dr. A. Goetze, Prof. Dr. P. Höfer, San.-Rat Dr. P. Zschiesche. Mit 24 Lichtdrucktafeln und einer archäolog. Karte. Würzburg: Curt Kabitzsch (A. Stubers Verlag), 1909. Pp. 466. 25 × 20 cm. 82

This stout volume with its accompanying map is the outcome of a resolution passed by the Historical and Archæological Society of Erfurt in February 1905, that a map should be prepared on which all the prehistoric finds in Thuringia should be carefully marked. The work was far more troublesome than had been anticipated; difficulties of various kinds were encountered at every step, so that fourteen years have passed before effect could be given to the resolution. The map, in two sheets on a scale of 1:100,000, covers an area of about 75 × 68 geographical miles or 5,100 geographical square miles, and is rather less than the province of Thuringia, although the finds belonging to the whole area are noted in the body of the volume. Seven colours are used to indicate the different epochs to which the finds are assigned and fourteen signs are employed to show the nature of the find, such as flat grave, barrow, settlement, *depôt*-find, fort, &c. To give an idea of the magnitude of the undertaking it may be mentioned that finds from 1,260 localities, including 2,030 graves, 7,600 single objects, 237 settlements, 46 *depôt*-finds, 198 forts, 19 workshops, and 23 menhirs, altogether about 10,000 entries or numbers are duly recorded. The bulk of the volume is taken up by a brief description of each find arranged by places and these according to the *Kreis* or *Verwaltungsbezirk* to which it belongs. In the left-hand margin of each page a letter or abbreviation such as St, B, T, R, F, Slv, in fat type, catches the eye and shows that the entry concerning the find belongs to the Stone Age, Bronze Age, La Tène, Roman, Frankish-Merovingian or Slav Period. The museum or collection where each object is preserved is, of course, given, and also a reference to the work, if such exists, in which the find is recorded. The bibliography, a most useful appendix, covers no less than forty pages and is arranged in sections according to the period of time of which the author treats. The twenty-four plates give good photographic illustrations of 379 objects mentioned in the text.

The preface of forty pages by Professor Goetze briefly summarises some of the historical results that follow from the excavations and finds recorded in the volume. As far back as the Moustérien epoch of the palæolithic age Thuringia was inhabited by man, who had to share the country with *Elephas antiquus*, the rhinoceros and the cave-lion. Then, as in many other places, a hiatus ensued, and when man reappeared he was no longer a savage but something of an agriculturalist, living in large communities and surrounded by domestic animals. He was in touch, too, with the outer world, for the marble arm rings, the ornaments of *spondylus* shell, the axes of nephrite and jadeite, as well as a rude copper dagger from Thuringian graves, must all have been imported. No less than seven types of neolithic pottery, most of it profusely ornamented, are found in the province, and these are described in some detail. Dr. Goetze purposely refrains from expressing an opinion on the relative age of the Cord-and-Band-ceramic, as it is still a moot point and still under discussion. The finds in Thuringia give no countenance to the hypothesis that the Bronze Age was heralded by a Copper period. The little copper that found its way into the province altered in no respect the neolithic character of the civilisation. In fact the general mode of life was not much changed by the substitution of metal for stone implements and one type of stone hammer appears for the first time in the later Bronze period. At the beginning of the Bronze Age large quantities of bronze were introduced by traders, for as many as 297 bronze axes were found together at Bennewitz, 120 at Schkopau and 84 sickles at Bedra. There is no proof as yet that the copper ores of the Hartz

and the Thuringian forest were worked at so early a period. In exchange for the bronze the Thuringians probably gave salt, in which the country bounds.

In the latter Bronze Age, corresponding on the whole with the fourth period of Montelius, a new people—who brought cremation with them and new forms of ceramic, the Lausitz type—make their appearance in Thuringia, arriving from the south or south-east. The difficulty of assigning ethnic names to prehistoric people is illustrated by the circumstance that Dr. Goetze supposes the new comers were Thracians, while Kossinna maintains they were Karpo-Dacians, and Dr. Pič considers them to have been Slavs. In the La Tène period, from the fifth century B.C. to A.D. 1, although the potter's wheel was known the great majority of vessels were still made by hand. In the succeeding epoch, from the first to the fifth century, covered by the Roman Period and the period of migrations, the civilisation of the Thuringians developed without a break from that of La Tène, and not until the second half of the Roman Period does the grave furniture show signs of greater wealth and luxury. J. A.

Superstition.

Frazer.

Psyche's Task: a Discourse concerning the Influence of Superstition on the Growth of Institutions. By J. G. Frazer, D.C.L., LL.D., Litt.D. London: **83** Macmillan, 1909. Pp. viii + 84. 23 × 14.5 cm. Price 2s. 6d. net.

"Psyche's task" was to sort out the seeds of good from the seeds of evil. Under this title Dr. Frazer has published, with additions, the substance of a paper read at a meeting of the Royal Institution, and afterwards given in the form of lectures to his class at Liverpool, "in the hope," he says, "that it may call attention to a neglected side of superstition and stimulate enquiry into the early history of those great institutions which still form the frame-work of modern society." The theory of the book is summed up in four propositions, to the effect that among certain races and at certain times superstition has strengthened the respect for government, property, marriage, and human life, and has thereby contributed to the establishment and maintenance of civil order, to morality, and to the security of life and property. "Superstition" is briefly defined as falsehood (p. 3) or a body of false opinions (p. 83). The four chapters which follow are made up of a selection from Dr. Frazer's immense store of examples. There is no theorising outside the four corners of the proposition, and unless the reader can find a clue to Dr. Frazer's present sociological position in the choice of examples, he must wait for *Totemism and Exogamy*.

In the chapter on *Government*, Dr. Frazer quotes, first, the *mana* of Melanesian chiefs; the worship of dead chiefs in Fiji; the *tapu* of Maori chiefs, believed to be living "gods"; and like beliefs from the rest of Polynesia, Angola, and the Malay countries. The next series, nearly all from Africa (there is a new example from Mr. A. C. Hollis' *Nandi*), shows the king's power over weather, crops, and fertility in general; and from this Dr. Frazer proceeds to the "halo of superstitious veneration" which surrounded the ancient Kings of Peru, India, Greece, Ireland, Scotland, Sweden, and Burgundy; and so on to Dr. Johnson and the King's Evil. To complain would be ungrateful, for it is thanks to Dr. Frazer that these examples are familiar. Nothing is said about the origin of kingship; in fact, the whole book is written with a sort of ironical detachment from modern theory, and the last sentences of this chapter might be a quotation from the early eighteenth century. Is this meant to mark the end of Dr. Frazer's interest in Sacred Kings?

The chapter on private property deals with those forms of taboo which are reputed to bring supernatural punishment in the shape of sickness and misfortune, on thieves and trespassers—an application of taboo so strongly developed in Polynesia that

"some good authorities . . . have held that the system was devised for no other purpose." (*Psyche's Task*, p. 17.) In this way, Dr. Frazer says, "Superstition has strengthened the respect for private property and has thereby contributed to the security of its enjoyment" (p. 30).

Dr. Frazer's theory of taboo was announced in 1905 (*Lectures on the Early History of the Kingship*, p. 52). Judging by the examples which he has chosen to use in this chapter, is taboo still negative magic? understanding by "magic," as in 1905, "a misapplication of the association of ideas by similarity and contiguity." None of them exactly fit the formula "Do not do this lest the counterpart of this should follow." Of the taboos quoted which are indisputably taboos—which are called *tabu*, *tambu*, *tapiu* by their makers—those of one series (pp. 17-20, 23) are not "sympathetic" in form at all, the other series is "sympathetic" indeed, but the correspondence is between the taboo-mark and the penalty invoked, not between the penalty and the offence (pp. 22-25). In a few cases of *fady* in Madagascar (p. 26) a special penalty is attached to the offence, "to steal an egg caused the thief to become leprous" and so on, but there is no "sympathetic" connection. It would have been interesting if Dr. Frazer had taken this opportunity of replying to Mr. Marett's criticisms. (*Anthropological Essays presented to E. B. Tylor*, 1907, p. 219 ff.)

The third chapter illustrates the proposition that "superstition has strengthened the respect for marriage," and for sexual morality in general. The Karens, the Assamese, the Battas, the Dyaks, and other peoples punish (or expiate) immorality, lest the crops should fail or the land be visited with sickness and dangerous beasts. "Where these superstitions prevail it is obvious that public opinion . . . will treat such offences with far greater severity . . . ; and conversely, wherever we find that these offences are treated by the community with extreme rigour, we may reasonably infer that the original motive was superstition" (p. 42). The explanation of this Dr. Frazer finds "in the analogy which many savage men trace between the reproduction of the human species and the reproduction of animals and plants"—an analogy mistakenly applied in their attempts to assist the propagation of animals and plants on the principle of magical sympathy or imitation (pp. 44, 45). Rules of sexual morality are thus survivals from a pre-religious age of magic. The deeper question how certain relations came to be regarded as irregular, and so disturbing to the course of nature, is left for discussion "in another place."

The last chapter deals with the service rendered by superstition in strengthening the respect for human life, by "the wholesome though groundless terror," inspired by the ghosts of murdered men. This has a two-fold effect: it deters the prospective murderer, and it prompts the community to get rid of him. Here, as elsewhere, Dr. Frazer inclines to refer *all* ideas of blood-pollution and all rites of purification to "a fear of the dangerous ghost"; though this explanation does not easily fit some of the best-known Hebrew and Greek examples. Surely there is a pre-animistic aspect of blood-pollution.

But, as we have said, *Psyche's Task* is little concerned with anthropological theory, and the modest propositions which alone it professes to uphold are abundantly proved.

BARBARA FREIRE-MARRECO.

ANTHROPOLOGICAL NOTE.

THE death is announced of Mr. W. F. Stanley, the well-known educationalist and founder of the Stanley Trade Schools; he had been a Fellow of the Royal Anthropological Institute since 1886.

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FIG. 1.

GRAVE OF AN ELDER: KAYA JIBANA.

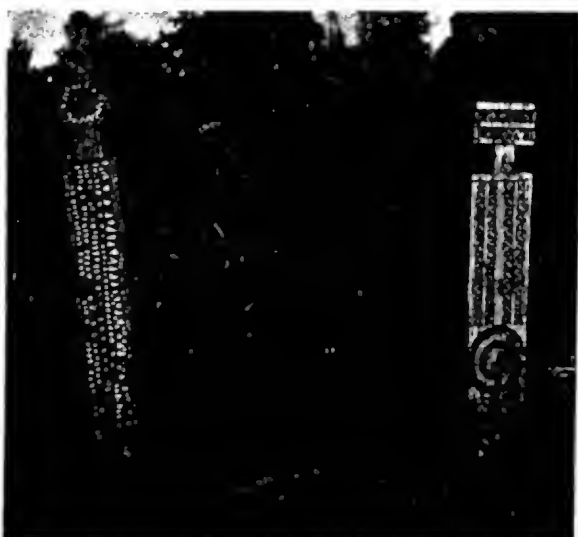


FIG. 2.

GRAVE OF A MAN AND HIS WIFE: KAYA JIBANA.



Photo: Capt. S. S. Kana, R.E.

FIG. 3.

GRAVE OF AN ELDER:
KAYA JIBANA.



FIG. 4.

GRAVE OF AN ELDER: KAYA JIBANA.

ORIGINAL ARTICLES.

Africa, East.

With Plate K.

Hollis.

A Note on the Graves of the Wa-Nyika. *By A. C. Hollis.*

85

The tribes that fringe the British East Africa littoral from the Tana River to the Anglo-German frontier are collectively known as the Wa-Nyika, or desert people.* They are nine in number, viz., Giryama, Kauma, Chonyi, Jibana, Kambe, Ribe, Rabai, Duruma, and Digo. All these peoples have a more or less common origin, having been driven south by the Galla about the fifteenth century from behind Shungwaya (Port Durnford), between the Tana and Juba rivers; they speak a very similar Bantu dialect, which is nearly akin to Ngozi, the old language on which the modern Swahili is based; they all profess a belief in a god (Mulungu) and in the transmigration of souls; and they worship the spirits of deceased ancestors and tribal elders. The shades of the deceased are called Koma. The koma cannot be seen; at one time they reside in the graves, at another above the earth. These spirits are held to be powerful for good and evil; to be responsible for good and bad crops, health and sickness, prosperity and poverty; and they must at all times and on all occasions be prayed to and propitiated—as, for instance, when a person falls ill or is about to undertake a journey, at a wedding, or at child-birth. Individuals worship the koma of their immediate ancestors or elder relatives, and the koma of the whole tribe are incited on public occasions, such as in times of war, during a drought or famine, on the outbreak of an epidemic, at the sowing of seed, when the harvest is reaped, and at the removal of a town or building of a village.

The chief resting place of the koma is in or about the Kaya, the central point or metropolis of the tribe, where a hut is erected for their habitation. In that hut all property deposited by the people is safe, for a kirapo or talisman is suspended in it, which prevents the approach of thieves. The koma are also supposed to haunt the trees that surround most of the Kayas. For this reason the Kayas are usually situated in the centre of small forests, which in old days formed natural fastnesses, where in times of war the whole tribe congregated. The felling of trees in or near the Kayas is forbidden, and the people living in the Kayas often go many miles to fetch their building poles and firewood. Important men and women of the tribe are buried in the Kayas: others are interred outside or near their own huts or villages. In order that the spot where the interment has taken place may be remembered, a memorial post is erected at the head of the graves. This post is sometimes grotesquely carved to resemble the deceased or it is shaped in a fantastic form and bedaubed with paint; at other times it is plain. The Jibana and Chonyi tribes are more given to carve the "headstones" than the others. A piece of cloth is generally hung round the men's posts, whilst the women's are occasionally clothed with the national kilt in miniature.

Sacrifices are made at the graves of such of the deceased as have families. Flour and water is poured into a coco-nut shell let into the ground, and goats and fowls are killed so that the blood falls on the grave. A portion of the food eaten on these occasions is left on the ground for the koma. When the offering is made the dead are called by name and invited to come and eat and drink. When beer is brewed, some of the liquid is poured on the graves and the spirits are exhorted to partake thereof, so that the drink may not excite quarrels among their descendants or relatives who live upon the earth.

A. C. HOLLIS.

Australia.

Frazer.

Beliefs and Customs of the Australian Aborigines. *By Professor J. G. Frazer.*

86

In May of last year (1908) I had the good fortune to meet the Bishop of North Queensland (Dr. Frodsham) at Liverpool, and he gave me in conversation some valuable information as to the native Australian beliefs and customs based on his personal

* These people call themselves A-Nika.

knowledge of the aborigines. He told me that he had travelled among the Arunta as well as among various North Queensland tribes, and he asked me whether I was aware that the Australian aborigines do not believe children to be the fruit of the intercourse of the sexes. His lordship informed me that this incredulity is not limited to the Arunta, but is shared by all the North Queensland tribes with which he is acquainted, and he added that it forms a fact which has to be reckoned with in the introduction of a higher standard of sexual morality among the aborigines, for they do not naturally accept the true explanation of conception and childbirth even after their admission into mission stations. The Bishop also referred to a form of communal or group marriage, which he believes to be practised among aboriginal tribes he has visited on the western side of the Gulf of Carpentaria; but, unfortunately, I had not time to obtain particulars from him on this subject. I pointed out to his lordship the high scientific importance of the information which he had volunteered to me, and I requested that he would publish it in his own name. He assented, but as some time has passed without his finding leisure to draw up a full account, he has kindly authorised me to publish this brief statement, which has been submitted to him and approved by him as correct. I need not indicate to anthropologists the great interest and value of the Bishop's testimony as independently confirming and extending the observations of Messrs. Spencer and Gillen on the tribes of Central Australia. In the interest of science it is much to be desired that the Bishop, or those of his clergy who know the natives, would publish fuller information on these topics.

In authorising me to publish the foregoing statement the Bishop of North Queensland (Dr. Frodsham) wrote me a letter (dated Bishop's Lodge, Townsville, Queensland, July 9th, 1909) in which he gives some interesting additional information and makes certain valuable observations, the fruit of his personal experience, which deserve to be laid to heart by anthropologists, especially by such as have no first-hand knowledge of the Australian aborigines. As he has kindly allowed me to make what use I please of his letter, I shall avail myself of his permission to quote some passages from it. He writes:—

"The result of thirteen years' observation has led me to conclude that while anthropologists may be right in placing the social organisation of the blacks at one end of the ladder of development and Western democracy at the other, they are absurdly wrong in thinking that they can carry the analogy into respective intelligence or even physical development. Speaking from observation I can say deliberately that the Australian blacks, when they are rationally treated, are capable of intellectual development—in one case also to my personal knowledge—of no mean order.

"As example of my use of the word rational, let me instance the fact that the aborigines find it very difficult to understand any modern conception of individuality. The tribe is the norm of their social life, and they regard social offences in much the same way that the Israelites did when the law of the Goel was in force. You can readily see how the existence of such a misconception affects all the relationships between the blacks and whites in North Queensland. At Yarrubah we have frankly accepted the communistic principle, and the blacks find it not only possible but comparatively easy to pass to our modern conception of individual responsibility.

"With further reference to the subject of my conversation with you at Liverpool last year, we often have girls, who are sent to the mission, *enceinte*, and we never dwell upon any wrongfulness of their condition. We have no trouble afterward, neither have we found, at any rate for many years, that the girls persist in the belief, practically universal among the northern tribes, that copulation is not the cause of conception.

"I was speaking this week to the Rev. C. W. Morrison (M.A. of Emmanuel College, Cambridge), who is acting head of the Yarrubah Mission. He told me that among the tribes around the Cairns district in North Queensland the acceptance of

food from a man by a woman was not merely regarded as a marriage ceremony, but as the actual cause of conception. Mr. Morrison also added that monogamy was the custom in these tribes except in the case of sisters. This latter fact is borne out by my own observation. One aboriginal, whom I know well, married four sisters and stayed at that, but whether from principle or prudence I am unable to say."

J. G. FRAZER.

England: Archæology.

King: Polkinghorne.

Excavation of a Barrow on Chapel Carn Brea, Cornwall. By **87**

H. King and the late B. C. Polkinghorne, B.Sc., F.C.S.

The former of us had previously noted a rather curiously shaped mound, and on August 19th, 1907, we examined it together.

A short distance from the tumulus shown on the six-inch Ordnance map, south of the ruined chapel, projects a natural carn, and carrying on the ridge made by this carn and abutting on the north end of it is the mound in question, obscured by growth and suggesting a portion of a drystone hedge. This, however, we decided it could not be in such a position. On probing it we found that it was composed of small weathered blocks, such as could be gathered on the surface of the hill. The approximate dimensions are:—Length, 18 feet; breadth, 7 feet; and height, $3\frac{1}{2}$ feet.

We opened on the east side at the middle, and after removing a considerable quantity of weather-rounded blocks came upon the eastern wall of a kist built of flat-faced stones, irregular in size, supporting a single slab. Without disturbing this capstone we caused the eastern wall to be removed, disclosing a mass of compact fine loam. When a considerable amount of this was withdrawn a large urn was disclosed standing at the south end of the kist. The loam was carefully cut away around and behind, and the vessel lifted out without other injury than a small hole made by the pick. The interior of the kist was about 2 feet 6 inches square, and the height 2 feet 3 inches.

The fine earth removed from the kist contained a few bones which had obviously fallen over the edge when the remains were placed in the urn, and three small flint flakes. The bottom of the urn had a large hole which had been plugged by a stone, and the lower third contained partly calcined human bones held together by loam. The rest of the urn was full to the mouth with earth and granules of quartz and felspar. One handle was broken.

The teeth (four in number) were stained and small. All the bones suggested a small individual.

The dimensions of the urn are:—Height, 20 inches; diameter, mouth (exterior) 13 inches; diameter, base, $7\frac{1}{2}$ inches; maximum diameter, $15\frac{1}{4}$ inches; projection of handle, $1\frac{3}{4}$ inches; opening of handle (vertical) 3 inches; general thickness, $\frac{1}{2}$ inch.

Neither the broken-off handle nor the piece of the bottom were in the kist. The ornamentation is very distinct and interesting. It is in three tiers and appears to have



been formed by impress of twisted reeds; the upper tier is of nineteen concentric triangles; the middle one of scooped-out holes, and the lower of a lozenge-pattern.

The barrow may at one time have been surrounded by standing stones; one such is in position at the free end (north) of the mound. Beyond this was a small mound of circular plan which by the depression on the summit had apparently been opened. We had this re-opened and found no signs of a kist or bones.

We do not suppose that the urn is of Neolithic Age, although the flint flakes were, we think, purposely placed in the kist, probably from tradition. We have not found a single flake beyond these on the hill, but on the surrounding moors and fields flakes and small scrapers are fairly abundant.

H. KING.

B. C. POLKINGHORNE.

Additional Note.

On September 27th, 1907, Mr. H. King re-opened this barrow on the western side and found another urn considerably broken and entangled in the roots of a furze bush just below the surface of the mound, resting against the north end of the capstone and *outside* the kist. The dimensions would be probably somewhat less than those of the first one described. One handle and part of the base are entirely missing (*cf.* above).

The ornament consists of a band round the mouth $3\frac{1}{2}$ inches in depth of repeated acute angles bordered by four horizontal circles above and three below, the whole being the impress of twisted thongs. The fragments contain three holes *bored after firing*, two of these make a pair on the same level of the ornament and are obviously "repair" holes. A few portions of bone were embedded in the mass of roots and earth.

B. C. P.

Archæology: Eoliths.

Lewis Abbott.

The Eolithic Problem. *By W. J. Lewis Abbott, F.G.S.*

88

The recent attacks of Mr. W. G. Smith upon the eoliths, although differing from those of other critics, are fortunately susceptible of either absolute proof or disproof, although the attacking of anything coming from one to whom we must all feel deeply indebted for so much magnificent work is by no means pleasant. His last article is unfortunately as painful reading as its predecessors. Everyone knows that the question of man-worked flints occurring at Dewlish does not rest upon the things he here attacks. What is the use of quoting the negative evidence of a paper written before a thing was discovered? And the attempting to alter the geological horizon of *E. meridionalis* simply because a palæolith was found *on the surface* at a different part of the town, or to deny the *bona fides* of the Java Mauer, and other finds, is neither geology nor anthropology, but unfortunately on a par with the manner of attack upon flint working. If we go back to Mr. Smith's former papers, his statements can, I think, be reduced to the following:—

(a) That naturally-shaped flints exist of such a form that they sometimes possess a thinned-out bay, and that during the vicissitudes of gravel-making, or gravel life, the weaker edges get abraided away, resulting in forms so closely resembling some eoliths as to prove the natural origin, not only of those which they resemble but others from which they are in every way dissimilar!

(b) That when a pebble is in a certain position and "moved about slightly" in the direction shown by the arrows, such a hollow-scraper is produced.

(c) That in this process minute chips are detached and (in the specimens under consideration) have been arrested by the oxide of iron, and now form a "pan" near the place from which they were removed.

(d) That, having found a small flake which was obviously removed from a flint while the latter was in the gravel, he maintains that Nature having removed one flake can displace the others in similar manner and thus produce the so-called eoliths.

Now, as regards (a), no one who has had any experience of beach action ever questioned for a moment that the bombarding which is incessantly going on among the stones must sometimes strike in a fortuitous place, and eventually, after producing perhaps hundreds of what a gunner would call "misses," but what we call incipient cones of percussion, produces a form similar to that we call a hollow scraper. There is nothing in all this to invalidate the artificial nature of eoliths. Upon the evolutionary hypotheses the anthropoidea were not born original discoverers and inventors: they must naturally have been furnished with their prototypes of implements by mother Nature. But what we are most concerned in just now is, firstly, are there any absolute criteria by which we can really distinguish any or all of the multitudinous operations of Nature from those of man; and secondly, does Nature work in the way suggested by Mr. Smith? because if we can show it does not, his attacks upon the eoliths are assuredly Balaam's curses.

From hundreds of similar flints I have, I pick one from the St. Leonard's beach, and I have no doubt it was such a nature-formed specimen that man's progenitors first used, and so deeply did the love of this form sink down into his nature that, throughout the whole of the succeeding stone ages, he still clung to it. Not only is it a bulbed flake but the concavity or bay is a cup-flaked face, criteria which I think Mr. Smith and other authorities still regard as proving man's work. My object in pointing this out is to show that I do not underestimate the work of Nature; on the contrary, having studied beach action every morning for the last ten years and the other natural forces for nearly four tens, I am prepared to give Nature credit for more things than most people, and, further, to show how she does them. Space precludes me entering fully upon the features which distinguish the works of Nature from the free-struck work of man. I may, perhaps, be permitted to refer to the following, which will be sufficient for our present purpose:—

(a) Upon this specimen can be seen those characteristic little incipient cones of percussion which do not appear in flints that have not been subject to cannonading.

(b) As the blows are administered in various directions and with varying force the axes of the flakes are at all possible angles, and the flakes of ever-varying sizes.

(c) Around and upon the actual edge of the "scraper," instead of the regular-formed correctly-directed pits and valleys of percussion we find a contused edge.

(d) We might further point out that if we examine the flaking face of such a specimen we often see round the hollow a number of incipient flakes—flakes not quite removed, but which a little push or necessary change of temperature will dislodge.

Now as I was particularly desirous not to be found tilting at a windmill I sent off to Dr. Blackmore and asked him if he would be so kind as to allow me to examine the specimens he had sent to Mr. Smith; and I have to thank him for not only doing this, but for sending two others. So exactly alike are these that I am tempted to call them the Blackmore triplets—two are dextral, one sinistral. I have examined these very carefully, and I am prepared to say that they do not bear a single one of the characters of naturally-shaped flints enumerated, nor others I have not here gone into. It is true they owe their original outline to thermal fissure, but this had nothing to do with the formation of the hollow scraper! Now as these do not possess one of the characteristics of natural productions, I submit, even at this opening of the subject, that Mr. Smith's argument against the eoliths falls to the ground. But let us turn to the positive features, as negatives very rarely convince. The first thing that strikes us is the brilliant uniform orange red of the whole surface of the specimens; we feel ourselves transported to the highly oxidised iron beds of the Red Crag, and we immediately realise the fact that since these flints entered the colour-giving matrix not a single flake has been removed! Most of the high edges show signs of wear, but nowhere of rock pinching or pressure, which under certain conditions, if present,

might have produced flaking. This, of course, rules out Mr. Smith's argument of the small flaking having been done at some subsequent period!

Two other things strike us at the same moment as the colour; firstly, the delicacy and evenness of flaking and the absolute constancy of the angle. There is no measurable difference in the three hollows, which are 31 mm. long, and as there are some twelve secondary flakes removed in each, and the largest is not more than 4 mm., it follows that the secondary working more closely approaches the fine work of neolithic times than we should expect; indeed, I looked through ten boxes of neolithic scrapers in my collection before I found an example of better work. Secondly, the axes of the flakes or valleys all turn coincidentally with the curve, thus showing that the direction of the blow changed with every flake removed, and that as this bears a constant relation to the desired curve, assuredly it follows they were struck by an intelligent being who knew, firstly, what he wanted, and secondly, how to get it, and above all that they were not the chance work of blind Nature, be her possibilities never so potent. After many years' practice and careful observation I am quite confident that these were the work of a fairly skilful flaker who could (a) obtain and maintain the striking angle; and (b) the intensity of the blow, and (c) a complete mastery of the changing of the former while maintaining the latter, or (d) changing the latter with the varying thickness of the stone with which he had to deal. As I run my eye up the hollow of one of these triplets and look down upon its edge and see such a constancy of angle that there is scarcely a mm. difference in the length of the whole flakes forming the entire row without one single blow resolving, I am tempted to admire the skill acquired by the one who worked it. On several occasions my old friend has written down the idea of practising flint working. This I am certain is a mistake. I have always done the reverse; the result is I can to-day reproduce most of the work of the past, even to the fine almost rectangular rectilinear work of the Hastings kitchen midden men, and I know the conditions necessary for the production of the various kinds of results desired. I unhesitatingly maintain that we ought to accept as an axiom that no one can speak with authority upon a practical subject in which he has had no actual experience. I respectfully submit that not realising this has led the hero of the palæolithic floors to go so terribly wrong in the next part of the subject, viz., how "Nature" removes flakes.

One of the most elementary but never-varying laws is that there must be a constant relation between the striking plane, the striking face, and the flaking face. Flakes are not chopped off as a bricklayer chops chips off a brick in the same plane as the motion of his trowel (striking plane). The billiard table is as much to the student of flint-working as it is to the physicist in the study of light or applied mechanics. If a ball were in the centre of the billiard table and one wanted to bring it over to a centre side pocket, would he drive his ball on full? Certainly not. Yet this is what Mr. Smith tries to do. He says the force was applied in the direction of the arrows. May I beg my old friend to try the experiment? If this hollow were struck at a normal to its surface (as at least one of the blows would be in traversing a semi-circle) hard enough, he might reduce the whole flint to powder, or, as we used to say in old student days in connection with shooting the candle through the blackboard, if the cohesion of the molecules were less than the velocity of the striker the latter might pass through the flint. I have seen this done with a piece of very thick plate glass, while the common case where the velocity is insufficient to do this where the cone is cut out with only a tiny apex is too well known to need mentioning. Now, if we look at the relation of the two striking surfaces with the two arrows in his Fig. 1, we see there is there practically a difference of 90 degrees, and, needless to remark, two blows acting at right angles to each other could not possibly produce the same result in relation to the plane of the curve! Fig. 2 introduces an even worse state of things, and carries the blow down till it only just skids upon the surface. It is therefore

evident that it was a physical impossibility for flakes to have been removed with power thus applied.

We now come to the action of the pebble (Fig. 8A). Here it is a little difficult, because we are only told that the pebble "moved about slightly" to hollow out the scraper. But I do not know, perhaps, that that matters much, as it is a mechanical fact that, move the pebble about how we would, we could not make it take a flake off in the flaking plane (the flaked side of the hollow), no matter what pressure was exerted. If, however, it did remove a splinter, unfortunately it would be from the left side! as anyone can prove for themselves by trying the experiment, following the angles and directions here given. It is therefore absolutely certain that the specimen could not possibly have been flaked in the manner suggested.

Anyone ought to know, and Mr. Smith knows it, only somehow he did not call it to mind, that a striking face and a flaking face can never be coincident. As a matter of fact, the force would have to come from the other side and act in an almost opposite direction.

There is another point with which I must deal, and that is that the fragments of the flint removed in the process of making the hollow scraper now rest in the "pan." It may seem unnecessary to reply to this, but, coming as it does from an arch-restorer of conjoined flints, I feel I must. I, too, have had some experience in fitting together detached fragments; during the working of the Ightham fissures I certainly restored over 5,000 small bones, jaws, teeth, &c., of the small animals. Then again, I have been trained all my life to ocularly weighing gems; a process justly regarded as the most delicate in the commercial world; the weights of rose diamonds being gauged by the eye to a hundred thousandth of an ounce, which ought to qualify one for the recognition of dislodged flakes. But let us examine the composition of this "pan" and thus settle the question. Upon examination we find this to be composed of hundreds of small pieces of silica of various sorts, 95 per cent. are coarse quartz grains mostly waterworn, and some fractured, some larger pieces of altered chert and highly altered flint and a few small fragments of flint, but not one of the size that would have been produced in the working out of this hollow, and only one of them that I could see, under microscopic examination, that presented the features of flaked faces; almost all of them presented the characteristic features of thermal fissure; while the facets of the hollow show free flaking: and instead of the small flakes being in the same state, and of the same colour as the flint, as a matter of fact not one of them is!

One more point shall be the last. Mr. Smith finds a small flake, which has been removed since the flint has been in the gravel, and therefore concludes that "if one small flake can be detached by natural pressure all the other flakes were." Innumerable parallels in this extraordinary logic rush into my mind: one alone shall suffice. Some time ago Mr. Lasham sent me a lot of palæoliths from Farnham; so roughly were these treated in transit that several flakes were removed. Now if a railway journey could remove several flakes, why could it not remove all the others and produce the palæolith? Everyone knows that implements as well as flints are subject to various kinds of thermal fissure as they lie in the gravel, and even to "spontaneous brecciation." Sir John Evans many years ago found a fine implement at St. Acheul which had split up into a great number of pieces by thermal fissure. Many of us have found the same sort of thing; we also know that "in-creep" stones have been known to flake each other, as instanced by Mr. F. G. Spurrell; but one or two flakes do not make an implement. Then again, take a hundred hollow scrapers of one's own make and examine them, most of them will show incipient flakes, which sufficient contusion, or shake, or change of temperature, will dislodge. These incipient flakes abound on beach specimens and neoliths, and even on palæoliths, and the flake Mr. Smith found dislodged in gravel might just as well have been an incipient

flake originating with man, and his gravel was just as potent an implement maker as the railway journey and no more.

We may grant the possibilities of Nature to hollow out an embayed flint, or to flake a rounded end, so as to have taught earlier man their use. We admit she can split up rounded pebbles, and from these make "hollow scrapers," very much more difficult of construction than those referred to by Mr. Smith, but she cannot produce the counterfeits of the combination tools, with the different kinds of work to suit the different kind of edges; she cannot alter the striking-plane upon the alteration of the flaking-face, to retain a constant flaking-plane; she cannot gradually change her striking-plane from north to south to make the pits of percussion turn coincidently with the hollow; she cannot maintain the constancy of the striking-angle so as to keep all pits (or flakes removed) of uniform length, especially if she has to perform the last-named feats coincidently; and there are numerous other achievements we see on some other disputed objects which lie altogether outside the possibilities of Nature.

The products of Nature are imitative in their outline, from the profundity of natural forces and resources; but it is the very variety of her operations which does not enable her work to stand the tests of physical constancy. So long as it is mere outline, not too closely examined, she is safe. It is only when we study and learn the laws which underlie all flint-working operations of man, and the profound capabilities and incapacities of Nature in regard to the shaping of hard stones, that we can call a verdict for Nature or the anthropoidea in regard to the eoliths. At any rate if they are ruled out it must be by an appeal to the laws of Nature, and not by an array of unsupportable assertions in direct opposition to them.

W. J. LEWIS ABBOTT.

Africa, Central: Archæology.

Seton-Karr.

Obsidian Implements in Central Africa. By H. W. Seton-Karr.

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I have lately returned from a journey on the Mombassa-Uganda Railway. I found scrapers and rough cutting implements along the course of the Gilgil River, washed out of the river deposits, the material being obsidian or volcanic glass from the numerous non-active volcanoes in the district. During a temporary delay of a train in one of the cuttings, at mile 305/400, I took from the *gisement* from the side of the cutting *in situ* three obsidian

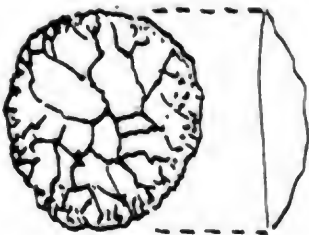


FIG. 1.



FIG. 2.

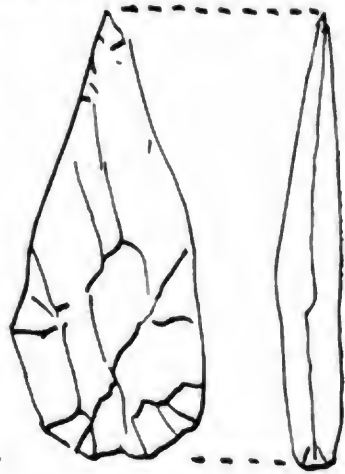


FIG. 3.

implements from 7 feet to 10 feet below the present surface. I forwarded them to Professor Gregory (without knowing that he was in Australia) as he first found similar ones, excepting circular scrapers, which he describes in his book on *The Great Rift Valley*. I found three types: (1) scrapers, (2) cutting flakes, and (3) lance-heads.

H. W. SETON-KARR.

Physical Anthropology: Method.

Gray.

A Portable Stature Meter. By J. Gray.

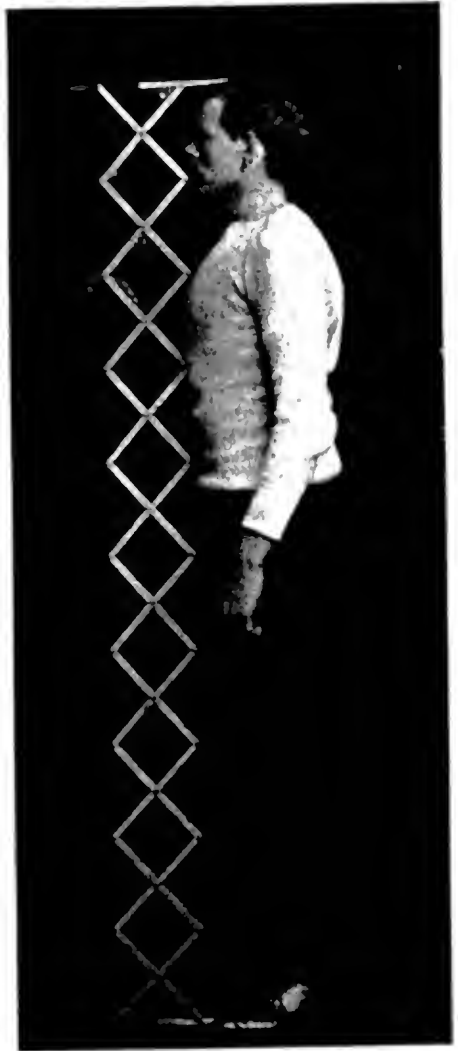
90

Travellers who propose to make measurements of the races they come in contact with have often felt the want of a stature meter which would be at once light, compact, and easily made ready for use. A rod graduated throughout its length and fitted together with two or three fishing-rod joints does not comply very well with the above conditions. It occurred to me that the lazy-tongs linkage might be adapted for this purpose, and the illustration shows a stature meter which I have designed on this principle, and which has been made by Home and Rowland, Troughton Road, Charlton, Kent. The instrument weighs about 1 lb., when made of magnalium, and when folded up may be carried in an overcoat pocket. The readings are taken by means of a steel tape graduated to mm., which is connected to the bottom transverse bar, passes up through the middle of the linkage, over a pulley on the top bar, then down to the reading point, which is fixed at a convenient height for the eye of the observer.

The length of the tape between the top guide pulley and the reading point must evidently remain constant when the linkage expands and contracts. To ensure this, the tape passes from the top pulley along the adjacent link, round a second guide pulley at its lower end, and similarly in a zig-zag manner along other links till the reading point is reached. Finally the tape is wound on to a spring drum.

The instrument may be used for measuring other heights than stature; for example, the height of the acromion, of the trochanter, or of the tip of the finger. It is preferably fitted with a level, to ensure the vertical position.

J. GRAY.



REVIEWS.

America: Mexico.

Starr.

In Indian Mexico: A Narrative of Travel and Labor. By Frederick Starr. Chicago, 1908. Pp. xi + 425. 24 x 16 cm.

91

Professor Starr begins his preface by the following remark: "Why another travel book on Mexico? Few countries have been so frequently written up by the traveller. Many books, good, bad, and indifferent, but chiefly bad, have been perpetrated." Professor Starr has no need to plead as an excuse for publication that "Indian Mexico is practically unknown," for the book is sufficiently interesting even to those who are not especially concerned with the study of native races. Indeed, Mexico

has been fortunate during the last year in the publication of two volumes—the book under notice by an expert anthropologist, and a volume on Southern Mexico by Mr. Hans Gadow, a distinguished naturalist.

The work planned by Professor Starr was threefold:—

- (1) The measurement of 100 men and twenty-five women in each population, fourteen measurements being taken on each subject.
- (2) The making of pictures, portraits, dress, occupations, customs, buildings, and landscapes.
- (3) The making of plaster busts of five individuals of each tribe.

To do such work, of course, involved difficulty, as the Indians of Mexico are ignorant, timid, and suspicious.

The book shows us how, by persistence and a very free use of the recommendations to the local authorities, given to the author by the Mexican Government, these difficulties were overcome.

The book does not contain a continuous narrative of travel, but is arranged in groups of chapters dealing with different parts of the country and covering journeys during the years 1895 to 1901, and as no map is given it will be difficult for anyone not acquainted with the localities to follow the author's routes.

The first chapters describe a journey made on horseback in 1896 from Oaxaca to the frontier of Guatemala through the mountainous country of the Mixes, a country that is very seldom visited by travellers, which the author describes as very beautiful, but where he was not well received by the natives. At Ayutla he found most of the villagers were drunk, by no means an uncommon occurrence in many of the Indian villages, and he seems to have been glad to get away from the Mixes, although it necessitated leaving a beautiful mountain region for the hot and arid country in the neighbourhood of Tehuantepec. However, three years later he re-visited the Mixes, and, after overcoming many difficulties, obtained all the measurements he needed.

From Tehuantepec, where he was duly impressed, as are all travellers, with the beauty of the Tehuantepec women, the author journeyed on through the State of Chiapas to the frontier of Guatemala. At Taxtla Gutierrez he notes the brightly painted and highly polished gourds and calabashes, which are manufactured in the town and sent to all parts of the Republic, and tells us that the "aje," which gives them their brilliant lustre, "is made chiefly at San Bartolomé, and is secured from an insect, a sort of plant-louse which lives upon the blackthorn and related trees. The insect is found only in the wet season, is small, though growing rapidly, and is of a fiery-red colour, though it coats itself over with a white secretion. It lives in swarms, which form conspicuous masses. These are gathered in vessels, washed to remove the white secretion, boiled, crushed, and strained through a cloth; an oily matter, mixed with blood (?) and water, passes out, which is boiled to drive off the water and to concentrate the oily mass. This is then washed in trays, to rid it of the blood, and made up into balls, which are sold at ten or twelve centavos (five or six cents) a pound. It is a putty-like substance with a handsome yellow colour. We have already stated that it is ground up with dry paints to be rubbed on the object which is to be adorned, and that the brilliant lustre is developed by gentle and rapid friction."

"Pintos," people afflicted with a disease, common in many parts of Mexico, which discolours and spots the skin, appear to be very numerous in Chiapas, and a photograph given of a Mestiza woman shows the unpleasant effects of the disease.

Professor Starr began his measurements with the Otomi, a name in ancient times synonymous with stupidity, as he felt that if he could succeed with this conservative and reserved people he might surely look for success among the other tribes. The Otomi women, who were measured first, may be considered true pygmies, as the

average stature of twenty-eight subjects was 1,437 millimetres. "The men apparently of pure blood presented two quite different types. There are many men who are as little as the women; these present almost the type already given as that of the women, but are a little lighter in colour. The second type is tall, sometimes over 1,700 millimetres. The eyes of these men are usually widely-spaced and the face appears rounder than in their smaller brethren. All the Otomis of both types, men and women, have astonishingly big heads."

On Lake Patzeuaro Professor Starr found the "Tsupakua," or spear thrower, the ancient "atlatl," still in use by the wild duck hunters for propelling light cane shafts tipped with iron.

The author leads us through many little-known towns and villages, mostly in the state of Oaxaca, in search of pure-blooded Indians, and even with the most recent map of the state spread before us it is not easy to follow him in his wanderings. He visited Mixtecs, Triquis, and the little-known Juaves near Tehuantepec, Cnicatecs, Chinanteecs, and many other tribes.

In some places, as at the large Mazatec town of Huanhtla, where the women wear particularly interesting costumes, he was well received, and the work of measuring both men and women was quickly finished, but there was always difficulty in persuading men to allow their heads and shoulders to be moulded with plaster of Paris, and in many instances there was much trouble with drunken Indian officials and no little risk was run from the ill-feeling aroused among the Indian population, and it was a wonder that the work was got through without some serious disturbance.

Among the Totonacs the author noted several curious "costumbres," survivals of a heathen cult, and he secured some sheets of the bark paper which is manufactured in secret, and cut into the shape of human figures and used in "magic" by the brujas or witches.

Tarascan, Tlaxcalan, Tepehua, and Totonac towns and villages were visited and the inhabitants were measured and photographed. A journey was made through the land of the Huastecs, an isolated fragment of the great Maya race, and a visit was paid to Yucatan in order to measure and photograph the Mayas themselves.

The last part of the book contains the description of a long and somewhat difficult journey from Tehuantepec through Chiapas to a navigable branch of the Grijalva river, which was descended to Frontera, whence a coasting steamer plies to Vera Cruz. This journey took the author through the country of the little-known Zoques, Tzotzils, Tzendals, and Chols. It was in the Tzotzil town of Chamula that the most serious outbreak of recent times took place, in 1868, "when under the influence of the young woman, Checheb, they attempted to restore the native government, the Indian life, and the old-time religion. Temples were erected to the ancient gods, whose inspired priestess the young woman claimed to be; but 300 years of Christianity had accustomed them to the idea of a Christ crucified; an Indian Christ was necessary, not one from the hated invading race; accordingly a little Indian lad, the nephew of the priestess, was crucified, to become a saviour for their race. Their plans involved the killing of every white and Mestizo in all the country; in reality, more than 100 men, women, and children in the fincas and the little towns were killed. San Cristobal, then the capital city, suffered a veritable panic, and it took the entire force of the whole state to restore order."

We could wish that the author had given us something more of the results of his investigations, but his ethnographic notes are reserved for separate scientific publications; it is probably the only record of the kind that has ever been made in this country and must be of immense value, and it was secured by untiring persistence and great energy, entailing much hardship and the utmost discomfort on Professor Starr and his companions.

"Reliable figures," the author tells us, "are wanting as to the number of pure Mexican Indians. If the population of the Republic be estimated at 15,000,000, it should be safe to say that 5,000,000 of this number are Indians of pure blood; speaking their old language, keeping alive much of the ancient life and thought."

The book is profusely illustrated by photography; there is a copious index, and a glossary of Spanish and Indian words.

The appendices consist of a most amusing account of the professor at work extracted from the *Chicago Record*, and a note on the purple spot on Maya babies.

A. P. M.

France: Archæology.

Congress.

Congrès préhistorique de France, Chambéry, Savoy, 1908.

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The Report of the fourth Congress, held at Chambéry, Savoy, in August, 1908, is a volume of over 900 pages, and includes fifty-eight communications with a very large number of illustrations, plans, and maps. It is a remarkable testimony to the interest taken by Frenchmen in *le préhistoire* of their country, especially as the previous Congress, held at Autun (for Solutré) in 1907, produced a *compte rendu* of 1,000 pages.

Among the many interesting papers are two by M. Rutot, "An Eolithic Industry contemporaneous with an Industry of the Upper Paleolithic Period" in a cave in the province of Liège, and "The Extension in France, Belgium, England, and Germany of the Flénusian Industry." The latter describes sites near Havre, one of them in the forest of Mongeon, at the spot called Les Sapinières; the other on the plateau of Sandouville, with a rudimentary history, "*Neolithic with an eolithic facies*." M. Rutot "had given this name provisionally to some finds at Flénu and Jemappes near Mons, and at Spiennes, where the rudimentary objects extend under the polished stone site. The study of the station of Spiennes showed that what at first appeared a true eolithic deposit, exposed on the surface of the ground by the effect of denudation, was really resting on the brick earth of Ergeron, and therefore neolithic. The finds near Havre are identical with those in Belgium, which he has now named from Flénu, and also some from Surrey and the chalk plateau in Kent. The neolithic eoliths of England cannot be mistaken for Tertiary eoliths, as these are a dark yellowish-brown, owing to their long sojourn under the Pliocene alluvium, and they are always more or less rolled, while the former are intact, with sharp edges and with white or blueish patina. The explanation of Flénusians in England (as a barbarous people still entirely in the eolithic stage) may be that as they appeared soon after the Tardenoisians had installed themselves in open-air stations, their invasion took place when the neolithic period had just commenced, soon after the opening of the Straits of Dover, and when it might be possible to pass over on foot at low tide."

The discussions on these two papers induced M. Rutot to write another, included in the report, "What is an Eolith?" "G. de Mortillet gave the name eolith to certain rudimentary instruments found in Tertiary beds. I am asked why I apply the same name to a quaternary industry and even to neolithic and modern implements, as the Tasmanian: (a) The eolithic industry is the mass of stone industries of all ages, which include only (in the portion preserved to us) lumps or flakes directly utilised for striking, cutting, scraping, and piercing after the necessary retouching for accommodation to the hand, and with occasional retouching when worn, to the complete exclusion of all instruments shaped intentionally. (b) An eolith is, apart from any chronological notion, one of the implements intended for striking, &c., forming part of an industrial class in which no intentionally-shaped instrument exists. Any industry which includes intentionally-shaped instruments belongs either to the

" palæolithic or neolithic groups. . . . That portion of the eolithic industry not preserved to us cannot include bone instruments, for we see that the most rudimentary use of bone appears at the level of La Guina, for me the Lower Aurignacian. If the Eolithic folk had used bone it is unlikely that the Palæolithics, a progressive people, would not have continued it. The modern eolithic Tasmanians did not use bone, but had two wooden weapons, a lance and a bludgeon. We are therefore authorised to suppose that some eolithic tribe possessed these weapons, especially as at even the most ancient eolithic period there are plenty of knives and scrapers which appear to have been used for working wood." "Intentional shaping is more complicated than merely retouching or preparing for use by roughly flaking. In Belgium, at Spiennes near Mons, we can see precisely where intentional shaping began, for in a very clear level between the Mesvinian (the last pre-palæolithic eolithic industry), and the Chellean, we recognise the existence of an industry which I have called Strépyien which offers for the first time the association of implements of eolithic facies and instruments of intentional shaping, rudimentary but evident. The Strépyien is at the bottom of those quaternary beds which lie on the lower quaternary." "Thanks to recent discoveries, we have seen that in France, Belgium, and England, the Chellean is found at the same stratigraphic level, but on account of different conditions of climates, the *Elephas antiquus* existed later in France than in England and Belgium, where it more rapidly gave place to the mammoth and its fauna."

Dr. C. Peabody described the exploration of two limestone caverns in the Ozark Mountains (states of Missouri and Arkansas), where, under clay and great fallen rocks, there are archaeological deposits of a considerable depth in an extremely fine dust. The abundant chipped flint implements and bone piercers and needles are of Magdalenian type, and there are fragments of coarse pottery. None of the painted pottery characteristic of south-east Arkansas was found.

M. Marc Didier found in the Vallée du Lergue (in the south-west of the department of Basses Alpes) that man had frequented it largely in the first periods of the lower Palæolithic period. He must have left the region during the Acheulean epoch, and probably was only there during part of the Mousterian, but increased considerably during the chief Solutrean period, as shown by its various forms of flint instruments, especially the laurel and willow leaf shapes. There are no typical Magdalenian implements, and the people may not have known the industries developed in Dordogne. The Solutrean merges into neolithic, and it is therefore difficult to separate the palæolithic from the neolithic in the open air sites in this region. In one plate of the illustrations some typical "turtle backs" are given.

The workshop of Bois de la Roche, at Igé (Saône et Loire), described by E. Hue, is interesting because all types of implements, more or less finished, are found there; but the most numerous chips are in a layer of vegetable earth resting on a layer of flint pebbles, the total thickness with implements being about 50 cms. Examination of the mass of implements and the different degrees of patina shows that the site must have been actively utilized since the Mousterian period, and that the Neolithic people continued to extract their materials for implements from it.

H. Marlot spoke of "Workshops and stations, palæolithic and neolithic, at Dixmont (Nonne). The chain of low green hills bordering the course of the Nonne, known as the Forêt d'Othe, was much frequented and inhabited by the primitive populations. The quantity of objects collected is enormous, and forms the magnificent collections of the Museums of Troyes, Sens, Auxerre, and Dijon, and the important private collection of Dr. Leriche, of Joigny. On the plateaux of Meilly-sur-Rouvre, Sainte-Sabine, Chazilly, and Thoisy-le-Désert, forming the watershed of the Seine and Loire, are found, under the untouched quaternary alluvium, an extraordinary quantity of

"flints, especially Mousterian and Magdalenian; with an abundance of Chellean *coups de poing*, and complete absence of Solutrean."

There were five papers on rocks with cup markings, and then came the lake-dwellings. L. Schandel described the neolithic site in the Lake of Aiguebelette, near Chambéry. The piles, still visible about 200 metres from the shore, are trunks of trees, 15 to 20 cms. in diameter. The depth of water there is from 1.50 to 2 metres. Flint implements of small size, and some good pieces finely retouched on both sides, were found, and also whorls of calcareous stone, and a few fragments of unbaked grey pottery. This site, with those of the lakes of Clairvaux and Chalain, and that close to Annecy, make four neolithic lake sites known at present in France.

The lake-dwellings at Annecy (Île des Cygnes) were found when dredging the harbour in 1884. The finds are in the Museum at Annecy. M. Le Roux said that below a thick hard bed of sediment was the archaeological layer formed of a mixture of mud and sediment, in which were the prehistoric objects mixed with remains of huts. There were polished axe-heads of amphibolite, serpentine, chloro-melanite, and other rocks, all found locally or near the Lake of Geneva as erratic blocks. Stone whorls and hand-made pottery of two kinds were also found. This site seems to be of the end of the neolithic period, when there were extended commercial relations, as shown by flints from Grand Pressigny. Agriculture was advanced, and there were domestic animals and many cultivated plants. These were described by Ph. Guinier. There was a weed, *Silene cretica*, originally from Asia Minor and Eastern Europe. It still grows in Southern Europe, but only on cultivated ground.

A study of the "Pottery of Bronze Age Lake-Dwellings of the Lac du Bourget," by Morin Jean, showed that a period of perhaps seventeen centuries was represented. Two series are distinguishable, the first produced under the influence of ideas which began at the end of the neolithic period, and prevailed during nearly the whole of the Bronze Age. This had local types with a few others connected with the eastern basin of the Mediterranean. In the second series are vases of more recent make, indicating a new departure, and the principles which the potters of the first Iron Age continue and follow. There are four-footed vases, vaguely zoomorphic, similar to some found in the second city of Hissarlik, in Cyprus, Sicily, Sardinia, and Northern Italy. The Lac du Bourget seems to have been the centre of the curious black pottery inlaid with thin bands of tin in various designs. The museum of Chambéry has many specimens.

Professor F. Foret's paper was on "Lake-dwelling Cemeteries," "a question still quite obscure and inconclusive." He knows three cemeteries on the north shore of the Lake of Geneva, which may be attributed to Bronze Age lake-dwellers; that of the Moraine de Saint Prex, discovered about 1876, that of Montreux, and that of Boiron, two kilometres west of Morges. There are several lake sites in the neighbourhood. Since the end of 1905 he has opened seventeen burials at Boiron, which revealed the following facts:—It is a cemetery on a level with no traces of a tumulus, mound, or stela over the tombs. The tombs are not in a row but dispersed, and 5 or 10 metres apart, and must have had some surface indication such as a wooden post, as they are never super-imposed. They are of very different types, with juxtaposition of burials of inhumation and incineration. In the tombs of inhumation there is no orientation of the skeleton, which is stretched out, lying on its back, with no mortuary chamber or cist, and no recognisable wooden coffin. The body had ornaments, as bracelets, rings, and bronze pins, but no arms or implements and not one knife. At the feet, in some cases, under a horizontal slab, there were vases, urns, and piles of plates. Two skulls were measured. One is dolichocephalic, index 71.5, the other mesaticephalic, index 78.

In the incinerated burials the remains of the body were either placed in a vase or more frequently spread on the floor of the tomb in a layer of ashes and bones. A

careful analysis of the fragments of calcined bones shows that there is no mixture of animal bones with the human remains and therefore no sacrifice on the funeral pyre, and the remains are of only one skeleton. Everything indicates that the cremation took place elsewhere and that the ashes were gathered up and deposited in the tomb. From the fragments of jewels it is apparent that the body was burned in its clothing. The ten or twelve vases, plates, &c., placed in the tomb strikingly resemble the arrangement of the cemetery of Hallstatt.

Dr. M. Baudouin described the Gallo-Roman necropolis of Tronssepoil at Le Bernard (Vendée), and its remarkable funerary wells. Thirty-two well-burials have already been found, from 3 to 15 metres deep, and 0 m. 90 to 1 m. 10 in diameter, excavated in the rock. The illustrations give a clear idea of the arrangement of the many vases, &c. found in them.

M. Florance gave a long list with plans of the camps, mounds and enclosures of the department of Loir et Cher. In the south of the department there are hundreds of tumuli, and chipped flints can be found whenever they are looked for. The museums of Blois, Vendôme and Pontlevoy are full of prehistoric souvenirs. "My researches in the department have led me to believe that if no prehistoric enclosures are to be found here it is because there has been no interruption, in our favoured land of inhabitation, and that ancient works are often thought modern, through having been occupied by successive generations." The feudal system did not create new centres of habitation: it simply applied new methods of defence to those already existing. Digging under a castle mound has revealed neolithic implements.

Small maps are given at the end of the volume of all the lake-dwelling sites near Chambéry.

A. C. BRETON.

Borneo: Languages.

Beech.

The Tidong Dialects of Borneo. By Mervyn W. H. Beech, M.A., with preface and notes by Dr. A. A. Fokker. Oxford: Clarendon Press, 1908. Pp. 120. 17 x 12 cm. Price 5s.

93

This little volume should prove extremely useful both to the students of Malayo-Polynesian linguistics, and also to travellers or officials in north-east Borneo who come into contact with the natives.

It consists of (1) a chapter on the origin of the Tidong language; (2) a brief but very interesting sketch of Tidong village life; (3) grammar of the two Tidong dialects of Tarakan and Bolongan; (4) a tale in both dialects, *The Tailed Man of Silimbatu*; (5) a vocabulary of Tarakan and Bolongan, with occasional words in other dialects. There is also a lengthy appendix by Dr. Fokker on the comparative phonetics and derivation of Tidong.

The Tidongs "occupy the east coast of Borneo between Lahad-Dato and the country a little to the south of Bolongan, though they seldom penetrate more than thirty miles inland." In his first chapter the author gives a short account of their history.

He regards them as of Malay extraction, the present Tidongs being descendants of Malay immigrants to Bolongan, who intermarried with the aboriginal population. Part of this mixed population emigrated to the island of Tarakan, where the Tidong speech was retained, but in Bolongan it assimilated more Malay words. The aboriginal people and language, which was thus modified by Malay into Tidong, is called by the author "Kayan." This suggests that words in the vocabulary which are not Malay should be Kayan, but a comparison of such words with those used by the typical Kayans on the Tutau and upper Apoh Rivers in Sarawak territory shows many differences.

By "Kayan" the author may possibly mean "aboriginal," for the Tidong words which differ from Malay are almost identical with those in the dialects of the people who are called in Sarawak "Orang Bukit" (hillmen, Kadayans, and Bekiau on Upper Balait and Tutong rivers) and Bisaya on the Limbang river.

The following short specimen of the dialects in question collected by me in Sarawak in 1899 show this very clearly:—

English.	Tarakan.	Bolongan.	Kadayan. Orang Bukit, Balait R.	Bekiau. Orang Bukit, Tutory R.	Bisaya. Limbang R.	Uma Bélubo. Kayan, Tutau R.	Uma Apoh. Kayan, Apo R.
Village	- pagun -	b'nua -	pagūn -	bagun -	pagun -	uma -	uma
Woman	- dinandu -	d'dor -	kemo -	kakimo -	kimo -	dōh -	ledo
Rain	- dasam -	dasam -	āsām -	rasam -	lasam -	usān -	usan
Sand	- agis -	agis -	agīs -	agīs -	pasin -	hīt -	āēt
Smoke	- lisun -	lisun -	lesūn -	lisun -	- - -	sap -	lisun
Hair	- abok -	bu ^v -	abok -	abuk -	abok -	bok -	bok
Meat	- ansi -	'nchi -	unchi -	ānsi -	ānsi -	sin -	sin
Tooth	- ipan -	ipan -	ipān -	ipān -	ipān -	ipā -	ipa
Wing	- alad -	alar, sayap -	alad -	ālad -	sayap -	kapēt -	kapēt
Coconut	- piasau -	nior -	pasau -	piasan -	bua-pasau -	nyō -	klāpa
Flower	- busak -	bunga, buse ^v -	usāk -	usek -	bunga -	pidang -	pidāng
Know	- pandai -	pandai -	pandai -	pandai -	kito -	jam -	jam
Pinch	- ngadut -	miut -	ngadut -	mengadut -	ngugot -	nitān -	nyitān

The grammar shows the Tidong, as might be expected of a language with direct Malay influence, to belong to the western group (Malay, Javanese, Sunda, Bali, Makassar, &c.) of the languages of the Archipelago. Dr. Fokker considers its nearest relation to be the Ngadju Dayak of Barito River, but a comparison shows that its forms are much less complex. The author has done the grammatical part very thoroughly, each rule being illustrated by examples in both dialects, sometimes with the Malay added for comparison. There is also a collection of useful and idiomatic phrases.

In the vocabulary a list of English words is given with the equivalents in Tarakan and Bolongan and sometimes in the Nonoekan and Simbakong dialects. In his introductory remarks the author states that he has omitted all words which are identically the same as Malay. This is a defect which creates some difficulty for the student, who could use the list with more certainty if pure Malay words used in Tidong had been inserted. As it is, when a word is absent from the English list there will always be a doubt as to whether its equivalent is Malay or not, *e.g.*, "arrow, bird, spittle," do not appear in Mr. Beech's list, which thus suggests that the Tidong equivalents to these words are Malay, but in Aernout's Tidoeng vocabulary (*Indische Gids*, 1885, pp. 536 ff.) the Tidong words are given as *bunsēoi*, *susui*, *uieq*, which are not Malay. The particular variety of Malay which has influenced the Tidong language is also left in doubt. Dr. Fokker contributes some interesting footnotes to the vocabulary and an appendix which will be very useful to the student of Indonesian phonetics.

The book is convenient in size and very neatly printed. The few illustrations are good.

The publication of this work by Mr. Beech should serve as a stimulus to other officers in British Borneo to set forth in as able a manner as he has done some of the wealth of philological material which exists in that little-known country.

S. H. R.



FIGURE A.



FIGURE B.

MUSICAL INSTRUMENTS IN KHORASAN.

ORIGINAL ARTICLES.

Persia.

With Plate L.

Sykes.

Notes on Musical Instruments in Khorasan, with Special Reference to the Gypsies. By Major P. Molesworth Sykes, C.M.G.

94

This subject falls into two headings:—

A. Musical instruments used mainly by the gypsies for playing at entertainments.

B. The *Nakkāra Khāna*.

A.—I have recently been making inquiries as to the musical instruments in use in Khorasan. To illustrate the subject, I sent for some gypsy musicians, of whom three photographs were taken, marked respectively A, B and C. Figure A alone shows all the instruments, as, in the other photographs, the reed instrument does not appear. Consequently, in my description, I shall refer chiefly to illustration A. The gypsies in the group are partly standing and partly sitting down. Standing on the left of the group is the player of the reed instrument (No. 1), which I propose to deal with first.

It is termed نی (Nay) or "reed" and is made from a reed with seven fastenings of gut at the joints. It is 18 inches long and

2½ inches in circumference. It has five holes in front and one behind, all at the lower end. Fingers are used in front and the thumb behind. According to Khan Sahib Ahmad Din Khan, who has materially helped me in collecting these notes, it is the national instrument of India, where it is called Bansari (bamboo). Its notes are shrill and rudimentary.

The ج (Tar) or "stringed" is the next instrument (No. 2). It is made of mulberry wood with a total length of 40 inches and a total width of 10 inches. Its neck is 19 inches long, and it has five metal strings, three on one side and two on the other. It is played with a triangular iron plectrum. The volume of sound produced is small, but not unpleasing. The third man standing up is playing a سُرنا (Surna) or oboe (No. 3), made of walnut wood and mounted in brass, studded with turquoises. Its length is 14½ inches with seven holes in front and one hole behind, played with



FIGURE C.

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the thumb. The sounding reed is always removed before playing and kept moist as in the case of reed instruments in Europe. The note is very shrill and powerful, somewhat resembling that of a bagpipe; it is always played with the kettle drums mentioned below. In *A Travers la Perse* (Hachette et Cie.), which is a French adaptation of my *Ten Thousand Miles in Persia*, the first illustration is that of three Baluch gypsies, the centre man holding a somewhat similar pipe. The other two men carry drums; the individual on the right of the group, curiously enough, looks as if he had stepped out of an Assyrian sculpture.

We now come to the men sitting down, one of whom is playing on the pair of نقاره (Naḳḳāra) or kettle drums (4). They are made of pottery and are respectively termed زیر (Zīr) or treble and بَم (Bam) or bass. The former, covered with camel hide, is $7\frac{1}{2}$ inches in depth with a diameter of 6 inches on the playing end, but tapering down to $3\frac{1}{2}$ inches. The bass is covered with cow hide and is $8\frac{1}{2}$ inches in depth, with a diameter of 7 inches, tapering down to 4 inches. The drum sticks are of gypchin (a hill bush) wood. As stated above, the kettle drums are played with the pipe. The ancient name was تَبِيرَة (Tabirah). The sounds emitted are not pleasing to European ears.

The next gypsy holds in his hand a tambourine (5), known as دایره (Diayrah) or "circle," cp. our English word "diary." It is made of the wood of the *Chinār* or Oriental plane, with rings and bells fastened inside. Its diameter is 17 inches and its depth $2\frac{1}{4}$ inches. Good instruments are fitted with gold bells and rings. I am informed that this instrument is used in Turkestan but not in Kashmir.

Next to the tambourine player is a man holding what is perhaps the most interesting instrument of all (6). The instrument itself is reproduced best in Figure B. It is known as a کامانچه (Kamānchah), or "little bow," and is made of walnut wood. The total length is 37 inches, with a finger-board 9 inches in length. The instrument is handled like a violoncello; but, in shape, resembles a mandoline with a long spike of worked iron. The belly is constructed from a pumpkin covered with parchement and mounted with stripes of bone radiating from a turquoise. The neck is pierced on each side with three holes, and with a hollow at the back, 3 inches in length; there are three wire strings and six pegs, three of which are dummies. The bow resembles our double-bass bows and is 22 inches in length; it is made of gypchin wood and has a strap and a loop with which to tighten the horsehair. To complete the equipment, a bit of beeswax is tied on to serve as rosin. Instruments similar in character and name are used in Turkestan and Kashmir. The volume of sound is small but not unpleasing.

To continue, the next instrument is a دُنبَك (Dunbak)* or drum (No. 7), which is made of walnut or mulberry wood, and is covered with parchement. Its total length is 17 inches, with a diameter of 11 inches. It consists of a belly $9\frac{1}{2}$ inches in length and a neck $7\frac{1}{2}$ inches. Somewhat similar drums made of pottery are used in Kashmir.

The last instrument to describe is a سنطُر (Santur) or zither (No. 8). This instrument is apparently more modern; the length on its longest side is $31\frac{1}{2}$ inches and 14 inches on the shortest side. It is played by tapping with wooden hammers, which somewhat resemble the parts of a pair of scissors. There are seven wooden pegs on each side and one of bone. There are three perforated holes on the board. The strings are wound up by means of seventy-two wrest-pins, each pin con-

* The name is clearly an onomatopoea, as are also *nakkāra* and *bam*.

trolling four wires. The zither is only procurable in Teheran, and is apparently of foreign make.

B.—The *Nakkāra Khāna*.—This music apparently dates back to prehistorical Iran and looms largely in the *Shāh Nāma*, the great epic of Persia. To-day, in imitation of Europe, there are also brass bands of varying degrees of unmelodiousness; but the *Nakkāra Khāna* still exists as an appanage of royalty in the chief cities of Iran. It is played invariably from a gateway to usher in the rising sun and to play out the setting sun. During the mourning months of Safar and Muharram, it is silent. It is possible that the custom was originally in honour of the great Juminary; but of this I have no proof.

At Meshed, the sacred city of Persia, the Imam Riza, who was a contemporary of Haroun-al-Rashid, is, in theory, still alive,* and the *Nakkāra Khāna* belongs to the shrine erected

in the saint's honour. The players are all locksmiths by trade and the posts are hereditary. The instruments used (*vide* illustration D) are three in number—(a) *Nakkūra*, or kettledrums of metal of a large size. Five sets are used at Meshed; (b) *Surna* or oboes, three of which are used; and (c) *Karna* کَرَنَّا or long trumpets. They are usually made of brass or copper, and are 5 feet in length. Ten are played in the Meshed *Nakkāra Khāna*. The ancient name for these



FIGURE D.

formidable instruments was گَردَم (Gāv Dam) or "Bull note." The music when heard from a certain distance is weird in the extreme and even fascinating. It commences and finishes with the drums and is unlike any other music I have heard. Captain Franklin, whose assistance I would acknowledge, tells me that similar long, metal trumpets are to be seen in Tibetan monasteries to-day.

Khan Sahib Ahmad Din states that the *Nakkāra Khāna* exists in Afghanistan at Kabul, Kandahar, and Herat. Popular airs are played one hour after sunset, after which a very big drum is beaten, and this is repeated thrice at intervals; after the third

* In this connection, when Meshed was connected with Teheran telegraphically, the first message sent along the new line was from the Shah to the Imam. The latter duly replied.

beat no one can move abroad without a pass. The *Surna* and *Karrnā* are only played in the month of Ramazan. The Amir is also accompanied on the march by a *Nakkāra Khāna*.

I now propose to make a few general remarks. Mr. Sinclair in the *Journal of American Folk Lore* (January-March 1907) has written a most interesting paper on Gypsy and Oriental Music, which my notes, to a certain extent, supplement. In it (p. 16) he states that "all the public musicians, singers, and dancers in Persia are gypsies." This statement, however, goes too far. In Khorasan, all the public musicians are gypsies; but, at Shiraz, they are all Jews, except in the case of *Nakkāra Khāna*, which is played by gypsies. Elsewhere they are mainly gypsies, but not entirely so. Singers are frequently Persians and rarely gypsies, if Persia be taken as a whole. Dancing girls are recruited from all classes in Persia and are seldom gypsies. At Meshed, the troupes invariably come from Teheran. They generally dance before women with castanets, termed *زنگ* (*Zang*), or "bell," and made of bronze. The music consists of two *kamāncha* or string instruments, one *dunbak* or drum, and occasionally a zither. The instruments, in this case, are not played by gypsies, but by Persians. Dancing boys dance before both sexes, but dancing girls only before women, except in secret. The gypsy women are not dancers, except in rare cases.

To resume, I have in notes and vocabularies, previously published in the *Journ. Anthr. Inst.* (Vols. XXXII and XXXVI), shown that the gypsies of Persia have only retained a percentage of gypsy words in their own language, which is now less pure than when Ouseley collected a vocabulary nearly a century ago. This Professor de Goeje explains* by suggesting that I was not given their own words. I, however, venture to think that, as the various vocabularies were given to my agents in different parts of Persia, and yet, more or less, contained the same percentage of words, it is reasonable to suppose that they represent the gypsy jargon of to-day. Consequently, it is not surprising to learn that the gypsies of Persia have no special songs in their own language, but sing those in vogue in Persia.

To conclude this paper, I give the following well-known lines from Hafiz:—

فغان کین لولیان شوخ و شیرین کار و شهر آشوب

چنان بردند میر از دل که ترکان خوان یغمارا

"Alas! that these Lulis (gypsy girls), bright and sweet beings, disturbers of the city:

Have reft patience from my heart like the Turks the tablecloth of loot."†

P. MOLESWORTH SYKES.

Tabu.

The Incest Tabu. By W. G. Aston, C.M.G.

Aston.

In his *Psychology of Sex* Mr. Ellis says: "The explanation of the 95
"abhorrence to incest is really exceedingly simple. The normal failure of the pairing
"instinct to manifest itself in the case of brothers and sisters or of boys and girls
"brought up together from infancy is a merely negative phenomenon due to the in-
"evitable absence under these circumstances of the conditions which evoke the pairing
"impulse. Courtship is the process by which powerful sensory stimuli proceeding
"from a person of the opposite sex gradually produce the physiological phenomenon
"of tumescence, with its physical concomitant of love and desire. . . . Brothers
"and sisters have at puberty already reached that state to which old married people

* Vide the *Journal of the Gypsy Lore Society* for October, 1907.

† This refers to the then Turkish custom of the retainers looting everything after the master had partaken of the feast.

"by the exhaustion of youthful passion and the slow usage of daily life gradually approximates."

Mr. Crawley, in an article on Exogamy contributed to *Anthropological Essays* presented to E. B. Tylor, endorses this view, and it is therefore not without diffidence that I venture to point out some considerations adverse to the opinion held by these eminent anthropologists. Mr. Ellis's explanation of the abhorrence to incest is no doubt simple. But is it adequate? How can such a merely negative phenomenon as the sexual indifference produced by long familiarity bring about the very positive result of abhorrence? There is surely a link missing in this chain of reasoning.

The statement that tumescence is dependent on the stimulus of courtship is only a part of the truth. Of course, it may be due to this cause, but it oftener comes of itself without any such stimulus, and in very young people generally does so. Mr. Ellis's sequence of cause and effect is courtship, tumescence, fruition. But is not tumescence, courtship (often brief and perfunctory or altogether absent), fruition, far more common? Just as hunger may be experienced without the stimulus of the sight or smell of food, so tumescence will occur even though there should be no person of the opposite sex within a hundred miles. There is an abundance of tumescence without either courtship or fruition.

The truth is that familiarity causes only a comparative indifference to the sexual attraction between brother and sister. It may even produce an opposite effect. Combined as it is with opportunity, it does away with shyness, which is a very potent obstacle in the case of young people. The sexual appetite, especially in the male, is much too imperious to be stayed by such a flimsy barrier, and, if no more substantial check existed, would sooner or later lead to fruition. We should then have a state of affairs like that described by a missionary to Anam. "There," he says, "no girl who is twelve years old and has a brother is a virgin." Sir Harry Johnston, speaking of a Central African tribe, informs us that "it is rare for children thus growing up together to fail to marry or to dislike one another." How can we reconcile these facts with Mr. Ellis's statement, that in the case of boys and girls brought up together from infancy there is an inevitable absence of the conditions which evoke the pairing impulse? The case of the lower animals is, in my opinion, fatal to Mr. Ellis's theory. The lord of the poultry yard distributes his favours with much impartiality among his consorts, whatever their relation to himself, of which, indeed, he knows nothing. He may show a passing preference for a stranger on her first introduction to him, but that is all. The pigeon fancier knows that if it is desired to make two birds pair, all that is necessary is to put them in contiguous cages where they can see one another through the bars. Whether they are brother and sister or not signifies little.

Mr. Ellis's comparison of the difference caused by the slow usage of daily life in the case of married couples is rather unfortunate for his theory. Here we have not an innocent familiarity as in the case of brother and sister. It is "love's sad satiety," a very different thing, which blunts the edge of desire, and even with this powerfully long familiarity is notoriously a very imperfect check on conjugal intercourse. What really brings about its cessation is the far more formidable obstacle of the incapacity produced by old age.

The insensibility, caused by familiar domestic intercourse, to the sexual attractions of a brother or a sister, though a real, is a negligible quantity in the problem. For its solution we must look elsewhere than in the mutual relations of the parties more immediately concerned. The abhorrence of this crime is not the spontaneous outcome of the familiarity between those of the same household, but is imposed from without. The true obstacle to incest is the fact that it is condemned by the general opinion of the community. In a word, it is *tabu*. The powerful influence exercised by the *tabu* is notorious. Men have been known to die of remorse for having unwittingly infringed

far less important prohibitions than that which is directed against incest. Let me quote a concrete example of its power from Japanese history. In the fifth century A.D. the heir apparent, Prince Karu, conceived a violent passion for his sister by the same father and mother. (Unions between the children of the same father only were not at this time considered incestuous, at least in the case of princes.) But he "dreaded the guilt" and was silent. His passion, however, became so violent that he ultimately yielded to it. The result was that the officials and people "turned against him." A civil war followed, Prince Karu was banished, and he and his sister eventually committed suicide together. The guilt, the popular indignation, and the suicide of the offending parties are unexplained by Mr. Ellis's theory. The Greek legend of Œdipus, the story of Kullervo in the Kalevala, and many others, illustrate the same principle.

The origin of this tabu is by no means a simple matter. Young people, and indeed the majority of the tribe or nation, know nothing of the real reasons for imposing it. When the sexual impulse begins to stir in them, as it does some years before puberty, they become possessed with an intense curiosity regarding sexual matters. Among other things they discover that everybody about them regards incest as an abominable thing not to be committed on pain of the most dreadful consequences. Perhaps they are told that bogey carries off the people who do such things, that they fall down dead or are struck with some fearful disease, and that they are hated and despised by everybody. Threats of corporal and even capital punishment are not wanting. Teaching of this kind acting on impressionable young minds produces a horror of the crime, which not only creates a motive for self-restraint, but actually kills desire before it is born. This, and not familiarity, is the real cause of the sexual indifference between near relations which undoubtedly exists.

It is important to observe that when once the notion that a thing is tabu has become firmly established, a condition of mind (the conscience of writers on ethics), hardly to be distinguished from the congenital predisposition known as instinct, is the consequence. The results on action are in both cases alike prompt and unreasoning. The man himself is unconscious of any difference. Observe a hen with her chickens. Her warning cry (the germ of the tabu) is soon recognised by her offspring, and acted on as implicitly as if it were an instinctive prompting from within. She tells them (from her inherited experience) that such and such a thing, a hairy caterpillar for example, is unfit for food, and they at once repress a natural temptation to make trial of it. Observation shows that their shrinking from the touch of the human hand is more owing to parental teaching than to instinctive fear. I once had an abnormally tame hen who neglected this part of her children's (and foster-children's) education. They were so devoid of fear that they would snuggle against me, or even creep into my sleeve for warmth. Yet I have known a blind kitten a few hours old show unequivocal signs of displeasure when taken up in a hand which had caressed a dog just before. Here it was no doubt the sense of smell which had aroused a purely instinctive antipathy.

When Westermarck says in his admirable work, *The History of Human Marriage* (p. 319):—"The home is kept pure from incestuous defilement neither by laws, nor by customs, nor by education, but by an *instinct* which under normal circumstances "makes sexual love between the nearest kin a psychological impossibility," he has hardly allowed sufficiently for the distinction between a genuine congenital instinct and those quasi-instinctive promptings which are really the result of early education, between the original stem and the grafts whose union with it has become obliterated by time.

The question remains:—What were the reasons which induced the community or their leaders to place a tabu on sexual intercourse between near relatives? Sexual jealousy has something to do with it. It is too general a cause to account for this

specific effect, but it no doubt helps to lend vigour and emphasis to any restrictive measures which may be dictated by other considerations.

There is evidence that unions of young people of immature age are condemned. Indeed the widespread puberty rites may be regarded as the formal removal of such a tabu. The injurious effect of too early intercourse of the sexes on physical development is recognised in the case of the lower animals. For example, I find in a leaflet addressed to poultry-keepers by the Dublin Castle authorities the advice:—
 “At an early age separate the sexes. When not allowed to run together both cockerels and pullets grow faster and ultimately make better birds.” It is also to be noted that pregnant girls, and babies whose parents are too young to bear their proper share of their support, are an unwelcome addition to the burdens of the community. Perhaps an additional motive is the protection of very young girls from male tyranny. But this prohibition, though it covers to some extent the same ground as the incest tabu and thereby helps to confirm it, is too general to account for it: we must seek for something more specific.

Sir H. Maine in his *Early Law and Custom* (p. 228) points out one *vera causa* of the incest tabu, viz., the discovery that “children of unsound constitutions are born of nearly related parents.” It has been abundantly shown by Darwin and others that in the case of the lower animals, unions of this kind yield a weakly and stunted offspring. In the case of human beings we have no longer before us the results of closer in-breeding. But the marriages of first cousins are notoriously attended with similar, though attenuated, consequences. The *Chuen*, a Chinese book written centuries before the Christian epoch, says:—“When the man and woman are of the same surname the race does not continue.”

Still greater importance is to be attached to Dr. Tylor's suggestion that “exogamy was an early method of political self-preservation.” Incest is anti-social. It tends to confine the domestic affections within the narrow circle of the family instead of acting as a cement to bind the community together and thereby promote its strength against attacks from without and also its general welfare. Both public and private interests would concur in establishing this prohibition. The head of a family or the petty chief who insists on his children marrying outside the domestic circle not only confirms his own power and prestige by so doing, but helps to lay the foundations of those larger political units with which the welfare of mankind is so intimately associated. At the present day, for somewhat similar reasons, foreigners are usually selected as the consorts of royal personages.

Mr. Yate says of “the endogamous Maoris who frequently marry near relations” that “each one is jealous of the authority and power of his neighbour; the hand of each individual is against every man, and every man's hand is against him.” The incest tabu is a necessary preliminary to progress from such a condition of things.

With Sir Henry Maine, I do not see how it can be assumed that savage or half-civilised races are necessarily blind to the physical evil consequences of incest. It should be remembered that with them, as with ourselves, it takes all kinds to make a world. They have their ignorant multitude who practise more or less imperfectly and unintelligently what they have learnt from their ancestors and superiors, but they have also a select few who may, in comparison, be called philosophers and statesmen. It is with the latter that all impulses to progress originate. Nor should it be forgotten that the incest tabu is not precisely a primitive institution. It requires a certain degree of enlightenment for its establishment. In many uncivilised countries it is at this day ill-understood, too narrow in its scope, weighted with useless provisions, or very imperfectly realised in practice. Even in civilised Europe there are countries where a man is allowed to marry his niece. With ourselves the

unions of first cousins are not half as much reprobated as they ought to be. Our table of prohibited degrees would bear revision.


A certain share must be assigned to the principle of the survival of the fittest, in the wide prevalence, though not in the origination, of the incest tabu. Few things are more vital to the welfare of a family, a tribe, or a nation, than the right ordering of the sexual relations, and any gross failure in this respect handicaps it woefully in the struggle for existence.

W. G. ASTON.

Egypt.

Blackman.

The Porridge Stirrer as an Egyptian Hieroglyph. By Aylward **96**
M. Blackman, B.A.

Among the number of unclassified signs in his *Collection of Hieroglyphs* Mr. Griffith includes . From an XVIIIth Dynasty example, Plate VI, Fig. 67, in the above-mentioned work, Mr. Griffith thinks it may perhaps represent a winder for thread

(Fig. 1). He, however, points out that this is quite possibly a corruption of the early forms which occur in the Old Kingdom tombs at Medum, and, as we shall see, this is undoubtedly the case. In those early paintings the object is coloured red and there is no binding (Fig. 2). (See *Medum*, Plates XI and XXVII.)

An implement in common use among the modern Egyptians and Nubians is the mifrakeh. With this they stir a sort of porridge made from lentils (Fig. 3). The example here shown is made from part of the rib of a palm-branch (gerideh). At the end of the stick a hole is bored and a short stick is inserted, the middle part of which is shaved away so as to be thinner than the two ends. By constant use in liquids the

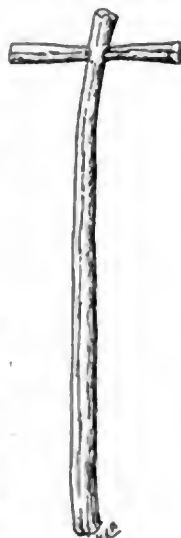


FIG. 3.




FIG. 1.




FIG. 2.


wood swells, and the inserted stick becomes tightly fixed in the hole. The examples given render it fairly evident that the sign

 reading *nd* is the modern mifrakeh. The examples from Medum have the same shaped ends as the modern implement, indeed the difference between the centre and ends is more strongly marked in the ancient than in the modern specimen.

The Arabic word farak, from which mifrakeh is derived, means to rub a thing with the hand, to husk corn between the fingers.

(See Hava's Arabic-English Dictionary under فرك.) The mifrakeh is used in the following manner:—The long stick is placed between the palms of the two hands, the lower end with the inserted stick being in the porridge, and the hands are worked exactly as if one were rubbing the husks off wheat, hence its name mifrakeh. The instrument revolves rapidly like a drill and so the porridge is stirred. It is perhaps worth noting that the fire-drill used among the Dinkas is called mifrakeh, being worked like the porridge-stirrer.

The meanings of the Arabic verb farak and the Egyptian verb *nd* are identical, i.e., to rub. This verb combined with the verb  *sn* occurs frequently in receipts

which direct that some hard material be reduced to powder, *i.e.*,  *nd snce* "rub and grind fine." It seems therefore certain that the object used as word-sign for *nd*, "to grind," is identical with the modern Egyptian and Nubian porridge-stirrer. And so one more sign may now be knocked off the gradually decreasing list of Egyptian hieroglyphs classed as uncertain.

N.B.—I found the porridge-stirrer used from Shellal up to Gerf Hussein in Nubia. Two of my boys, one from Qûs and the other from Quft, say it is commonly used in their neighbourhood, and my head guard, from Illahûn in the Fayyûn, says it is used there. While acting as assistant to Drs. Grenfell and Hunt at Bebnasa in Middle Egypt I found several Græco-Roman examples in the rubbish-mounds.

AYLWARD M. BLACKMAN.

REVIEWS.

Africa, East.

Weule.

Native Life in East Africa. The Results of an Ethnological Research Expedition. By Dr. Karl Weule. Translated by Alice Werner. London: Pitman, 1909. Pp. xxiv + 431. 24 × 17 cm. Price 12s. 6d. 97

This book is not only translated by Miss Werner, but is also reviewed by her in a "Translator's Introduction." The author suffers nothing by the translation, and he has the benefit of authoritative criticism in the review. Judged as an account of the results of a scientific study of native life the book is open to the charge of diffuseness, a great deal of irrelevant matter being included. A better title would have been "An Ethnologist in East Africa," since the personal element is conspicuous. Dr. Weule's freshness of outlook, and his sense of the novelty of his experiences, enlist the reader's sympathies even more than do his frequent references to the trials of a traveller and investigator, whilst his energy and enthusiasm are worthy of all praise. The full value of his investigations must be judged by the detailed accounts of them, published elsewhere, but it is evident that he was able to get through a large amount of work. Six months is a very short time in which to travel considerable distances, make large collections, take photographs, cinematographic and phonographic records, study languages, and explore the "back of the black man's mind." In the last-named field of research he was less successful than he expected, but, as Miss Werner incisively indicates, he expected too much.

Most of Dr. Weule's time was spent amongst the Wayao, Wamakua, and Wamakonde, in the region of the Makonde plateau, and his most important achievement was in his observations of certain parts of the *unyago* or initiation ceremonies, of which he shows a number of photographs. The scale on which they are reproduced is, however, too small, as is also the case with the series representing stages in the making of pottery and bark cloth respectively. The wearing of the *petele* is illustrated by a number of excellent photographs, and scarification is also liberally treated in this respect. The numerous reproductions of drawings by natives are of considerable interest.

In spite of defects in the plan of the book, it is an interesting and useful addition to general anthropological literature.

H. S. H.

Africa, South.

Tongue.

Bushman Paintings. Copied by M. Helen Tongue, with a Preface by Henry Balfour. Oxford: Clarendon Press, 1909. Pp. 48. Plates 56. 34 × 25 cm. Price £3 3s. 98

It is unnecessary to insist on the importance of a work which serves to place on permanent record a large series of accurate copies of bushman rock paintings.

Apart from the melancholy interest which attaches to the bushmen themselves as an almost extinct aboriginal race, the high standard of their pictorial art as compared with that of the surrounding peoples, and its similarity to that of the cave-men of Europe, appeals strongly to all those interested in ethnological science. The drawings, over one hundred in number, are the work of Miss M. H. Tongue, and were laboriously collected over a wide area, including portions of Cape Colony, the Orange River Colony, and Basutoland. Miss Tongue was fortunate in having as collaborator Miss Bleek, daughter of the celebrated philologist, who from her earliest years has been acquainted with representatives of the bushman race. The text consists of a detailed description of each site from which paintings were copied, together with suggestions for the elucidation of the meaning of the figures where possible, and also a short note by Miss Bleek on a number of individual bushmen with whom she had the good fortune to come in contact in the early eighties. Mr. Henry Balfour contributes an interesting and appreciative preface. Valuable as the text is, the illustrations form the main feature of the book; these, with the exception of four plates of photographs and a good map, are all in colour, and by far surpass any reproductions of similar paintings heretofore attempted. The majority are printed on paper tinted either silurian grey or dark terra-cotta, which gives the effect of a dark rocky background; two are chromo-collotypes, and show a distinct attempt on the part of the artist at shading. The latter are pictures of eland, and are two of the best in the book, their technique suggesting something of the Japanese.

The scenes depicted deal in the main with animal life, and the figures of the various beasts are infinitely more successful than those of the men and women, a feature which is not uncommon in primitive art. The animals represented are in great variety—antelope, buck, lion, leopard, hippo, rhino, giraffe, baboon, various domestic animals, ostrich, vulture, crane, and so forth. Living by the chase, the bushmen were compelled to make the study of the game animals their chief occupation, and nothing bears witness to their deep knowledge of animal life as the studies executed by the favoured few who were the tribal artists. In spite of the simplicity of the drawings it is impossible not to acknowledge the vigour of such scenes as the springing lion on Plate III, the hippo turning on the hunters on Plate IV, or the charging wildebeest on Plate XXXI. One of the most successful paintings is shown on Plate XVI, a peaceful scene of eland and hartebeest grazing, in which is displayed a remarkable variety in the attitudes assumed by the various animals; this picture is further remarkable as containing almost the only representation of vegetable life contained in the series, the branch of a tree from which an eland is pulling the leaves. Desire to depict nature as he found it often led the primitive artist into difficulties, but his courage failed not at the delineation of even the most awkward attitudes, and attempts to show animals in a foreshortened aspect are fairly numerous; notably on Plates II, XVIII, XXV, and XLI. Of particular interest to the ethnologist are those scenes which exhibit pictures of native life, such as the hunting scene (Plate XXV) where two hunters disguised as buck are stealing up to a herd of eland, or the representation of a dance (Plate XXXVI), where a number of men dressed up to represent animals perform characteristic evolutions while the women stand round and clap their hands.

Of other races the Bechuana are frequently represented, and are easily recognised by their shields of characteristic pattern, and one drawing appears to represent a couple of European soldiers behind a breastwork. A number of signs are, of course, impossible of explanation, and of these no doubt some have a magical significance; but it is pleasing to find illustrations of two, possibly even three, myths which have been preserved to us. One depicts the well-known story of the children and the mantis (Plate XL), the second the legend of the man who was changed into a frog (Plate VIII); besides these pictures there exist two (Plates VI and XVIII) showing

spotted buck, of no known species, surrounded by fish. The authors make the very plausible suggestion that these may represent the mythical "rain-bulls" which sorcerers were supposed to lead over the country in order to cause rain; in this case the spots would typify the raindrops. Space permits no more than a short description of the leading features of the pictures, each of which deserves a close study, and those who had the opportunity of seeing Miss Tongue's drawings when they were on view in the library of the Royal Anthropological Institute will know that much remains unsaid.

It is not easy to estimate the difficulties which beset the collection of a series of drawings such as these, and all students of primitive man will feel greatly indebted to Miss Tongue and Miss Bleek for their labours. It must be no small recompense to them to see their fine material published, as it deserves, in so sumptuous a form. The Oxford University Press already possesses a reputation for enterprise and efficiency which it would be hard to render higher, but, if the thing is possible, it is accomplished by the valuable book of which a brief description has been given.

T. A. J.

PROCEEDINGS OF SOCIETIES.

Anthropology.

British Association.

Anthropology at the British Association, Winnipeg Meeting, August 25th to September 1st, 1909. **99**

The Anthropological Section of the British Association met at the Carlton School, Winnipeg, under the presidency of Professor J. L. Myres. The President's address on the influence of Anthropology on the course of Political Science will be found in *Nature* (Sept. 23, 1909). As was to be expected, a great number of the papers presented dealt with American Ethnology and Archæology, and an important feature of the meeting was the day devoted to papers and discussion on the necessity for an Ethnographic Survey of Canada, not only of the aboriginal population, but also of the white settlers. Partly as a result of this a committee was formed to consider what steps should be taken to carry out such a survey, and a memorial was drawn up on the subject, which, it is hoped, will be presented in due course to the Canadian Government.

It may also be of interest to note that the Section had the opportunity of seeing a party of Sioux and Cree Indians who happened to be quartered at the barracks during a part of the meeting.

In the summary which follows the papers are arranged under subjects, and the future destination of the papers, so far as known at present, is indicated in square brackets.

PHYSICAL ANTHROPOLOGY.

Archæological and Ethnographical Researches in Crete. Interim Report of the Committee.—The Committee has received the following interim report from Mr. C. H. Hawes, who was able to return to Crete in the spring of 1909:—

Extracts from Mr. C. H. Hawes' Report.

During October, 1908, four skulls, two portions of other crania, several pelvic and long bones came to light in the course of deepening a well in the alluvial bank of an ancient river ten minutes east of Candia. The argillaceous deposit on which they lay had acted as a natural plaster of Paris, and we are now in possession of human osseous remains of not later than the Middle Minoan I period, in the most extraordinary state of preservation. Complete measurements and observations have been made upon

these, and I hope to publish them at an early date with a comparison of those discovered by Dr. Duckworth in 1903.

In attacking the problem of how to discover or uncover the ancient stratum among the modern people, I have addressed myself to the task of finding out and isolating, if possible, alien elements of historical times. Representatives of Turkish and old Venetian families have been approached, and genealogical, traditional, and historical information garnered, with a view of testing them anthropometrically. For example, one village at which I am to stay this week claims to contain only descendants of Venetians who have strictly refused exogamous marriages. A small Armenian colony has existed in Candia since the Turkish occupation in 1669, and inasmuch as the Armenoid type of head is met with in the east end of the island, whether of historic or pre-historic date, this little band of settlers is being measured. Albanian influence has been suspected in Crete, and rightly so, since for various reasons the Turkish janissaries in the island included large numbers of these Europeans, and considerable mixture resulted. In view also of the Dorian occupation of Crete and the belief in certain quarters that Illyria largely furnished the Dorian hosts, it seemed important to get at the Albanian type. Records of these and other peoples to be met in the island were in my possession, but I was anxious to attempt the method of race analysis by contours of the living head. During my short stay at Athens I was able, by the aid of Mr. Steele, of the Lake Copais Company, to pay a flying visit to an Albanian village in the mountains to the north-east of the lake. There, in the village of Martino, reputed to be the purest of five such, I measured forty individuals and obtained contours of their heads by means of an instrument which I had just completed. Contours obtained at random from Albanians of the islands of Hydra and Spezzia coincided exactly with the type from Martino.

The problem has been attacked from another direction. What modification of the cephalic index and the shape of the head has been effected by artificial deformation or formation of the head? I am indebted to Professor Macalister for calling my attention to the importance of this factor. It is a custom which is far more prevalent than is dreamed, and thousands of people in this island, mostly of the male sex, are unaware of a custom which is universal except among the Mussulmans and the better educated minority of urban population. The first object was to gauge the effect on the cephalic index and the contours. At the outset it is necessary to distinguish between the results of intentional formation and involuntary deformation due to the lying on hard surfaces. For these purposes I am making comparisons between subjects who have and have not undergone head shaping, and between those who have and have not suffered from a pillowless infancy. Striking examples of the latter are to be found among the small colony of Epirote bakers, who, owing to the extreme poverty of their parents at home, possess the most extraordinary and incredible head-shapes it has been my lot to see. Similar observations are being made upon the Armenian settlement here. Observations on these two extreme forms of head will prove instructive in comparison with the results of similar, though modified, treatment of the Cretan native. Further, whole families of Cretans are under observation, and measurements and contours have been taken of them, including children who have and have not been bandaged in their infancy, from the age of fourteen days up.

In addition to these researches which are in progress, I have been able to garner from a cave, where are carelessly consigned the bones of many a deceased Cretan of to-day after a short burial in the cemetery, some hundred bones from all parts of the skeleton, saving, unfortunately, the cranium; and thus a comparison is possible between skeleton and skeleton of ancient and modern times. Two collections of hair, representing a series of shades, have been made for me by Orthodox and Mussulman barbers in Candia. [*Rep. Brit. Assoc.*, 1909.]

Anthropometric Investigation in the British Isles. Report of the Committee.—Although the last report of the Committee was considered to be final as regards the method of anthropometric investigation, it was thought advisable to reappoint the Committee to act as an organising centre to promote the establishment of anthropometric investigation among all classes of the population of the British Isles. In this direction important work has been done during the past year.

The importance of installing anthropometry in public schools was brought under the notice of the Headmasters' Conference on February 10th last, and their co-operation was asked for. In reply, a letter, dated May 21st, was received from the secretary of the Headmasters' Conference Committee, suggesting the issue of a short circular explaining the items of information that it was most important to collect. In response to this suggestion a memorandum was drawn up and sent out by the Anthropometric Committee to the headmasters of 107 public schools.

Measurements are now being carried out, generally under the direction of the medical officers of the education authorities, in primary schools, and in a certain number of provided secondary schools. But there is still a wide field among secondary schools for both boys and girls in which the Committee could do good work.

The Establishment of a System of Measuring Mental Characters. Report of the Committee.—The work of the Committee is going forward and promises to yield interesting results, but is not sufficiently advanced for a full report.

ETHNOGRAPHY.

(a) AMERICAN.

Papers relating to a proposed ethnographical survey of Canada:—

(A) *The Aboriginal Peoples.*

E. SIDNEY HARTLAND.—*Retrospect.*—In this paper Mr. Hartland summarised the work that had been done in Canada from the time of the Jesuit Fathers down to the present. A great part of this work was done by the committee of the Association appointed at the Montreal meeting in 1884. The work of this committee ceased with the death of Dr. George Dawson, and since then, with the exception of Mr. Hill-Tout's researches on the British Columbian tribes, little systematic work has been done by Canadians, and it has been left almost entirely to the institutions and museums of the United States.

DR. F. BOAS.—*Ethnological Problems of Canada.*—After a brief enumeration of some of the gaps in our knowledge Dr. Boas pointed out that the general outlines of Canadian ethnology had become known through reconnaissances carried out largely under the auspices of the British Association, and that the task of the future would be a systematic study of the ethnological problems of the country. He discussed these problems in their relation to the general ethnological problems of the American continent. While in the whole area from the Argentine northward to the Great Lakes certain characteristic traits of civilisation are found which differentiate the civilisation of ancient America from that of other continents, distinct types of culture are found on the extreme north-west of the continent, including the whole area from California to the coast of Labrador; and in the extreme south-east in Brazil and Tierra del Fuego. This suggests that these marginal areas may possess a culture older than that of the middle part of the continent and not exposed to the same historic influences. Among the Canadian tribes only the Iroquois and a few of the western tribes, like the Blackfeet and Assiniboines, belong to the middle area of the continent. All the rest belong to the northern marginal area. The tribes east of Great Slave Lake and of the northern interior of Labrador may represent the civilisation in its present form. The problem

becomes still more difficult owing to undoubted influences which extended from Asia into America, and which reach Hudson's Bay and the Great Plains. The unravelling of these historical conditions is, perhaps, the most important problem to be solved by a study of Canadian ethnology.

Ethnologists are not yet in accord in regard to the theory of the gradual development of civilisation. While some believe that similarities of culture occurring among diverse tribes, sometimes wide apart, is due to psychological similarities, others believe that gradual dissemination has played an important part. In Canada there are at least six distinct types of culture, that of the Eskimo, the north-west coast, the Mackenzie barrier of the western plateaus, that of the plains, that of the eastern woodland, and that of the Iroquois. The study of the relations of these will help to clear up the fundamental anthropological problems that are of the greatest interest, and which have also a distinct practical bearing upon our views relating to the history and future of our own civilisation.

DR. G. B. GORDON.—*The Anthropological Work of the University of Pennsylvania*.—Dr. G. B. Gordon, reviewing the researches into the history of man on the North American continent that have been carried on under the auspices of the Government and institutions of the United States, called attention to certain far-reaching changes that have been witnessed in the attitude of the educated classes, and especially of the institutions of learning, with reference to those studies that fall directly within the province of anthropology, changes which, he predicted, are destined to affect very profoundly those inter-related branches of learning which, like history and sociology, are most directly affected by the anthropological method. These tendencies are made manifest by the history of anthropological activities in those quarters which are most influenced in shaping educational development and methods of research.

The work of the Smithsonian Institution through the Bureau of Ethnology has been a prominent factor in promoting that interest in the study of the native races which has been carried on, with successful results, by the great universities and museums of the country. Nothing in the history of anthropology is more significant than the present condition of archaeological studies in the great universities as contrasted with that which obtained a few years ago. Until very recently the name of American archaeology was obnoxious because it was foreign to European civilisation. To-day in the same quarters the chief archaeological interest lies in the prehistoric period, and, with a realisation of the unity of all problems of human development, comes a rapidly-increasing interest in American archaeology as a subject of study. This is the condition of archaeological science in American institutions of learning to-day, and, as an index of this condition, the Archaeological Institute of America, which for many years has maintained schools at Rome, Athens, and Jerusalem, has only last year established a similar school in New Mexico, and is making an effort to establish another in the city of Mexico, the object of these schools being the study of American archaeology.

(B.)—*The White Settlers*.

DR. F. C. SHRUBSALL.—*Ethnographic Study of the White Settlers*.—Dr. Shrub-sall described the nature and methods of investigations being pursued in crowded centres of population, with a view to obtaining statistical information that may be of value in determining the factors that lead to degeneration or improvement in the physical life of communities. In the main, Dr. Shrub-sall held that the constitution of a people depended upon immigration, emigration, and the birth and death rates. The death rate seemed to be the selective factor in Nature's method of evolution, weeding out the weaklings and the unfit. With the advance of civilisation, however, humanitarian principles had prevailed and every effort was made to save the unfit from perishing in childhood, and the insane from committing suicide, and the mentally

deficient from the consequences of their lack of adaptation to their environment, thus leaving them to be parents of the next generation, and unfortunately such proved a fertile stock. Of the relative importance of heredity and environment heredity predominated and the degree in which it affected the individual was dependent upon the intensity of inherited constitution. The entire trend of the paper was to urge the necessity for taking preventative measures while the Dominion was still young, instead of remedial measures when the country would be confronted with the grim problems which faced the thickly-populated centres of older lands. Much might be done, it was urged, to prevent the landing of the physically and mentally unfit, and to encourage the propagation of the race through the physically and mentally fit members of the community. Many illustrations were given of the methods of tabulating and comparing the statistics obtained in the course of medical inspection of school children.

C. HILL-TOUIT.—*Report on the Ethnology of the Okanagan of British Columbia.* [*Journ. Roy. Anthr. Inst.*]

DR. G. B. GORDON.—*Ethnological Researches in Alaska.*—In 1907 the author made an expedition, on behalf of the University of Pennsylvania Museum, into the Koskokwim valley in Alaska to investigate the natives of that region, who, owing to the remoteness of their habitat from white man's influence, preserve in a marked degree their aboriginal characteristics. The route followed was from Dawson westward by way of the Tanana and Kantishna rivers to lake Minchunima to the headwaters of the Koskokwim, thence down the entire length of that river to the coast. In the upper valley of the Koskokwim were found Dené tribes preserving the characteristics of the widespread Dené stock.

About 700 miles from the mouth of the river Eskimo culture began to be felt, and about 200 or 300 miles further down Eskimo customs had entirely replaced the native customs, even in those communities where there was little or no mixture of Eskimo blood. The tendency of the Dené in this region to adopt Eskimo culture which has intruded from the Bering Sea coast is strongly marked, and shows that the Eskimo culture is the more aggressive and the more advanced. At the mouth of the Koskokwim the Eskimo communities have retained in full vigour their peculiar customs and mode of life because that part of the Alaskan coast has not been visited by trading vessels or by whalers.

The general health and physical welfare of these communities as well as of those on the Koskokwim river was noticeably better than in those localities where the nations have been in continued contact with the white man's influence, as, for instance, on the Yukon and on Norton Sound. At the same time the mental and moral state of the former population is decidedly better than that of the latter. All observations tend to show that the inhabitants of Alaska, both Dené and Eskimo, undergo deterioration, physical and moral, under the influence of civilisation.

WILLIAM MCINTOSH.—*Note on the present Native Population and Traces of Early Civilisation in the Province of New Brunswick.*—The native and half-breed population numbers about 1,500 at the present time. These belong to two tribes: the Micmacs, occupying the eastern coast and part of the Bay of Fundy shores, and the Malecites, who occupy the St. John River Valley, or about the same country which was occupied by their ancestors in early times. They are able to speak English but use their own language among themselves.

Evidence of the prehistoric occupation of this region by a people who were using stone implements are abundant. In sheltered coves along the coast are numerous kitchen middens; along the principal rivers prehistoric camp-sites abound. With a few exceptions the stone implements are of the type common to the Algonquin areas.

The pottery, in material and shape, closely resembles the ware made by the Algonquin tribes elsewhere, but it shows some interesting variations in ornamentation, differing in this respect from the Algonquin pottery of the south.

JOHN MACLEAN.—*The Blackfoot Medical Priesthood*.—The author defined medicine-men, or the medical priesthood, as shamans, conjurers, doctors, prophets, and priests, and gave the different grades in the priesthood. The subject of initiation was then dealt with and the course of instruction was outlined. Previous to this the would-be medicine man undergoes a period of voluntary seclusion during which he fasts and sees visions. The dress and facial decoration of the fraternity was next described and the sacred numbers were explained. The subject of disease was next treated, the Blackfeet being particularly prone to small-pox and consumption. The causes of the diseases were discussed, especially the influence which the belief in evil spirits has upon the minds and bodies of the natives.

The author then treated of the medicine-man in connection with religion, such subjects as animism, sacred stones, sacrifice, spiritualism, hypnotism, prophecy, and incantation being discussed, as well as medicine songs, charms, and amulets.

Lastly, the author considered native medicines and remedies, and discussed the value of the work of the medicine men among the natives and the influence exercised by them on the native religion. [*Manitoba Free Press*.]

(b) NON-AMERICAN.

DR. F. C. SHRUBSALL.—*The Geographical Factors bearing on the Distribution of Racial Types in Africa*.

E. SIDNEY HARTLAND.—*On a Cult of Executed Criminals in Sicily*. [See *Proc. Third Int. Congress of Religions*. Oxford, 1908.]

[A report of the other papers read will appear in a subsequent number of MAN.]

ANTHROPOLOGICAL NOTES.

PROFESSOR CESARE LOMBROSO died on October 19th. Born in 1835, he studied medicine at Padua and Vienna, graduating in 1856. After serving as a surgeon in the Austro-Italian war he became Professor of Psychiatry at the University of Pavia and subsequently held the same chair at Turin. He was chiefly notable for his researches in criminology and his results are published in his work *L'Uomo Delinquente*. He was an honorary fellow of the Royal Anthropological Institute, having been elected in 1892. 100

DR. ROBERT CREWDSON BENINGTON died suddenly on August 26th. Of late years he had devoted his attention to anthropological work and at the time of his death was engaged on a study of the African skulls preserved in the museum of the Royal College of Surgeons and at the Natural History Museum. He joined the Royal Anthropological Institute in 1906.

THE death is announced of Dr. Robert Needham Cust. Dr. Cust, who was born in 1821, was for twenty-four years a member of the Indian Civil Service, and took part in the settlement of the Punjab after the Mutiny, being present at several actions. He was subsequently Home Secretary to the Government of India and retired in 1867. He was the author of a great number of works on linguistic subjects, amongst which may be mentioned those on the modern languages of the East Indies, of Africa, of Oceania, of the Caucasian group, and of the Turki branch of the Ural-Altaic family.



FIG. 2.



FIG. 1.



FIG. 3.

SOME DOROBO BELIEFS.

ORIGINAL ARTICLES.

Africa, East.

With Plate M.

Hollis.

Some Dorobo Beliefs. *By A. C. Hollis.*

101

I recently went for a trip through the little known country lying between Naivasha and the Anglo-German frontier, and was fortunate enough to obtain a snapshot of a Dorobo, who was a member of the caravan, spitting towards the rising sun before saying his morning prayer (Pl. M, Fig. 1). Whilst performing this ceremony he had to lay aside his sword.

The rains were overdue at the time, and I took photographs of the same Dorobo making medicine to prevent the rain from falling. Fig. 2 shows him whistling at and defying the rain-god. In Fig. 3 he has laid aside his bow, and whilst holding his sword upright is rubbing the handle rapidly between his two hands. This is done when the rain-god takes no notice of his defiant remarks, and insists on turning on the celestial water-tap. It is doubtless only a remarkable coincidence, but although the rain often threatened we had very little till we returned to the Uganda Railway, when it came down in torrents. All the natives of the caravan—Kikuyu, Kavirondo, and other East African tribes—believed that the Dorobo had kept off the rain, and I was told more than once that if it had not been for him we should have been washed away.

It is worthy of note that I met some Masai-Dorobo in the Rift Valley who did not speak Nandi like most of the Dorobo in both British and German East Africa. Whether their ancestors had never known this language or had forgotten it owing to long intercourse with the Masai, or whether they had been simply poor Masai, who, owing to the loss of their cattle, had become outcasts and taken to hunting, I was unable to ascertain.

A. C. HOLLIS.

Persia.

Sykes.

Notes on Tattooing in Persia. *By Major P. Molesworth Sykes,*

C.M.G.

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Until the last generation, tattooing was almost universal in Persia. Ladies of the best families had designs pricked on the forehead to connect the eyebrows: also on the chin, on one cheek, on the lip, on the throat, and on the breasts. Imitations of anklets and bracelets, too, were frequently tattooed. During pregnancy, tattooing, more especially on the sole of the foot, was practised, with the idea that the mark would be transferred to their offspring. Women generally had birds, flowers, or gazelles tattooed; but occasionally verses from the Koran. Men, on the other hand, had lions and Yā Ali Madad, or "Help, O Ali," on their arms.

Tattooing was apparently practised by women (a) to embellish their charms, (b) to avert the evil eye, (c) to hide a scar or blemish, and (d) to cure a malady. As regards this latter practice, Captain Franklin, I.M.S., tells me that he recently saw a patient who stated that she had tattooed herself above her eyebrows as a cure for granular lids, the chronic form of conjunctivitis. Compare with this the old English custom of curing myopia by piercing the ears. In the case of men, wrestlers and gymnasts especially affected the art, it being customary for the winner in a wrestling match to have a lion tattooed on his arm. To-day, tattooing is rare among the upper classes, but is still affected by the lower classes, more especially in Southern Persia. The nomads of Fars of both sexes tattoo. In Kerman, prostitutes are said to be tattooed with a tree guarded by two chained lions covering the front part of the body. The tattooing is generally done by a gypsy woman, and the gypsies also bleed all classes at certain seasons. The procedure is to rub over the place with two Chinese herbs known as *jadwar** and *tanzu*, famous for healing properties, to paint the design,

* Zedoary, a root of genus *curcuma*.

to prick it in with a needle and then to rub in antimony. Ink, indigo, and charcoal are also employed and, very rarely, a yellow dye, either turmeric or *zallil*, a local herb. Probably the devices originally possessed a meaning, the lion being obviously the symbol of bravery; but, to-day, nothing of this is known, except that the devices on the forehead and cheeks are calculated to ward off the evil eye.

The Persian expression is *خال کوبیدن* "to strike in a mole," and the practice is considered to be against the teaching of Muhammad who, according to a tradition, cursed (a) the woman who added false hair or allowed it to be added; (b) the woman who tattooed or was tattooed; (c) the woman who sharpened teeth or whose teeth were sharpened; and (d) the woman who depilated or who allowed depilation. This tradition is quoted by mullas as an order against both vaccination and dentistry.* It also shows that tattooing was in vogue in Arabia; indeed, there are many references to it in Arabic literature, and, to-day, it is still a flourishing art, whereas in Persia it is considered to be a relic of barbarism.

P. MOLESWORTH SYKES.

Archæology.

Abbott.

The Pygmy Implements. By *W. J. Lewis Abbott, F.G.S.*

103

In speaking of the pygmy implements, frequently referred to in these pages, it is essential that we should have a set of definite objects in our mind, marking some particular phase of prehistoric culture. As a matter of fact flints of diminutive, or, in contrast with those generally found in collections, pygmy size, with minute workings, are found in deposits of many ages; and in most of these the outlines are more or less fantastic. Upon every flint pebble beach and in river gravels very remarkable small flints with minute chippings can be found, of which the form and chippings often so closely resemble those which we claim to be the work of man, that none but those who have given the necessary amount of study to the question can correctly determine these interesting little objects. With many people a universal negation of everything of this class finds an easy solution of the difficulty. But, unfortunately for this attitude, many of these things occur in settlements, away from all the vicissitudes of gravel making, in places where there is no native flint, so that the danger of this wholesale condemnation ought to become obvious.

In dealing with the "pygmy" flints from the older formations, great care must be exercised in drawing a line between the work of man and the results of the multiple forces of Nature; and the older the formation in which they occur the greater the difficulty becomes. There can be no doubt, I think, that Nature furnished man, or his immediate predecessors, with prototypes, and that vast quantities of flints which have served his purpose consist mainly of natural forms with but little additions from those who used them. It is as the ages roll on that we see the artificial preponderating over, and finally supplanting, the natural element. As we watch this, not only do new types appear, but new methods of working, and both types and working have a chronological value, and increase in numbers as the ages follow one another. It is by no means sufficient for worked flints to be of pygmy size, and quaint outlines, to justify the assumption that they ought to be regarded as belonging exclusively to one particular age or people; they were not the product of one exclusive race, at one particular "age."

The evolution of the flint industry in very many ways parallels the evolution of organic life upon the planet. Many types become fixed, some of which persist through several of our greatest divisions of time; others had a shorter life, while others soon became extinct. Diminutive flints with more or less quaint outlines with very delicate

* The Arabic is as follows:—

لَعَنَ اللَّهُ الْوَاحِلَةَ وَالْمُتَوَلِّهَ وَالْوَالِشَةَ وَالْمُسْتَوِشَةَ وَالْوَارِشَةَ وَالْمُتَوَشِّرَةَ وَالْثَامِمَةَ وَالْمُتَنَبِّصَةَ

chippings occur in the Pliocene beds on the chalk plateaux, as at Wrotham Hill, and were thrown out with Pliocene shells at the summit level a little north, also in the Pliocene Dewlish gravels and in the Cromer Forest Bed. Diminutive worked flints of contemporary age are found in many places upon the Continent, at various horizons in our Pleistocene gravels, and in eaves all over Europe; in rock shelters, kitchen middens, settlements, stations, and encampments all over the country; in sand dunes, peat bogs and fens, dew ponds, and numerous other places throughout the United Kingdom. It is when we study these things, and the deposits in which they occur, in chronological order, that we see the evolution of type and method of working, the latter being so highly important for our present purpose, while we watch the survival of older forms and the appearance of new as we ascend the series.

When we come to "open air" stations the conditions present grave difficulties unless we have made a special study of the products of all the ages anteceding that to which the newest relic belongs. The passage from the older river through the older caves is easily seen, and from the older to the new cave deposits. It is, however, during the cave period, or rather during the period represented by the cave deposits, that we see the evolutions of what I wish to call the pygmy implements, *la petite industrie* of Pierpont, the *Tardenoisien* of Rautot.

For over twenty years some of us had been collecting these little things without being able to realise their importance; it was not till the discovery of the Hastings kitchen middens that this was done; here upon the old rock ledges, under the lee of the overhanging rocks and at the mouths of the fissures, were enacted all the dramas of the life of a given people at a given period. Hither they brought the trophy of the chase, gatherings from the foreshore and forest, the fish they could catch, and the birds they were dextrous enough to shoot. Hither, also, they brought the flints from the beach and sat and worked them into those delicate characteristic forms by a method essentially peculiar to them. Here they lit their fires and partook of the evening meal, and here were sealed down all the relics of the period, not only the flint and bone tools, amulets, &c., but the bones of the animals, birds, and fish of that period. The contents of these have been elsewhere described,* so that it is scarcely necessary to go into fuller details—one picture may suffice, restored from materials as found.

Extending over a great distance through the Midden material was a stratum of clear barren sand, marking a period of rest from habitation. On carefully removing this, there were laid bare probably the most fascinating collections of objects of a prehistoric period that have ever been seen together; for here in its purity existed a complete picture of the life of these old hunter-fishermen sealed down from contamination and admixture with the relics of subsequent times, and thus this remarkable accumulation has the right to be regarded as absolutely typical, and to justify the claim of the term Hastings Kitchen Midden Men Period.

In a corner formed by the cliff face and a projecting fissure wall squatted one of the old fellows chipping away at a flint, a heap of which lay by his side. In his hand was a hard-worn quartzite hammer-stone, one of the most cherished objects of his life. Near him crouched his wife, and possibly offspring, collecting the flakes he struck off, and sorting them into little heaps according to the purposes for which they were suitable. Near him was another old fellow, working away at one of those beautiful bi-concavo-convex ridged-back, finely-worked, round-based, spear tips; he had finished the prize all but one blow, which would have removed the implement from the flint block in a finished condition, when he, too, stops of a sudden. Near to him are several others splitting bones either for their marrow or for material for implements, &c. One old fellow has broken a leg bone of one of the trophies just secured in the chase; beside him are two pointed flint wedges. He has already

* *Journ. Anthr. Inst.*, Nov. 1895, Plates x to xiii.

inserted one into the narrow cavity, and the bone* is splitting in several places, but the skeletal element is firm and healthy, and grips the wedge tightly, and splitting requires force applied several times.

A little further there is a fire on the hearth which has baked the underlying loam into a red brick for several feet in extent. Over this is roasting a boar's head, till the jawbones are becoming so exposed that before the great episode of the evening is finished they will all be reduced to charcoal. Near at hand there are also several of the community engaged in taking off the damaged flint points broken in the chase, and replacing these truncated butt ends with new flint tops; consigning these broken portions to the accumulating midden or refuse heap. The number of these flint butt ends that have accumulated tell us that these flint tools, whether on sticks or sinews as fish hooks, or bound to hafts or reeds, suffered greatly in use, and required periodical replacing. At this moment an esteemed implement has come into the hands of one of the old fellows. It is broken asunder across its centre, and out of some respect for it he is putting a new point to it, working off those delicate minute flakes in the manner characteristic of the race. He has run his bone flaker up one side, and left an edge such as no other system of flint working can produce. He has just begun the other, and apparently in a minute or two bi-symmetry will again be obtained, with a sharp piercing point as a result, but he stops just as suddenly! Near him, upon the hot ashes of a fire, stands the coarse earthen pot, the prototype of our modern tar kettle—the earliest saucepan we know; its bottom and sides are incrustated with a thick layer of soot, telling of the withstanding of the ordeal of fire accompanying many an evening meal, while close by is a pile of calcined flints beneath burning wood, cooking a clay-invested rabbit. Near by are several flat-bottomed vessels, the prototypes of our first saucers or basins, although the soot upon their bottoms tells the tale of their having been put upon the blazing fire. Everyone is busy; everyone appears intent upon what he is doing, when an alarm is raised, and everyone in the settlement has stopped what he is doing. It is the enemy! Down goes the core upon which the first man is engaged; even his cherished quartzite hammer is dropped in the alarm. Down goes the marrowbone, with the flint wedge firmly gripped, and down is thrown the implement finished all but for one blow. The pot is left upon the hearth, and the heap of hot stones, and everyone flees for dear life, which, in all probability, is barely saved! From the discovery of human bones it is probable that all did not escape, and those who did were afraid to come back again for a long period; and between this time and renewed operations the Zephyrs and good old Æolus had spread a curtain of blown sand over it all, and thus preserved the picture of the times for thousands of years, to delight the soul of the pre-historic archæologist at the close of the nineteenth century A.D.

During the last twenty years at least 50,000 relics of this period have been carefully studied by me. Many pygmy implements identical in outline with some of those found in the Hastings kitchen middens have been found in caves with the mammoth fauna, and each particular type has its history, which it is impossible to trace here. Also in the French caves certain specialised forms, which, for want of better words, I have named "old edges" and "tangling pieces," and which, although not found in this country associated with polished weapons, are exceedingly plentiful in settlements of the Hastings kitchen midden age. This method of production associates these little objects very closely with the survivors of the French troglodytes, and the fauna—land and marine—point in the same direction. There is one thing, however, in which these old fellows excelled their predecessors, and that was in the introduction of a method of right line minute flaking, which I believe to have been effected with a slot in a bone very like the wards in a key. With an instrument of

* Now in the British Museum.

this description it is possible to reproduce the minute right-lined flaking which is the distinguishing feature of the Hastings kitchen midden men. No one can realise the accuracy and delicacy of this work. I have often counted sixty and eighty of these minute flakings to one inch, forcibly calling to mind the teeth of the machine-cut wheels in a chronograph! It is neither minuteness of size, quaintness of outline, nor small work alone that entitles a flint to be regarded as of Hastings kitchen midden age, or belonging to *la petite industrie*, but this method of working, which, whenever found, is accompanied by the other characteristics.

With reference to the age of these interesting little objects there are many points to connect them with the Continental troglodytes, of whom they might well have been the work of the descendants who migrated northwards to Britain and southwards to the Mediterranean, Egypt, India, and numerous other places. The geological evidence in Lancashire, according to Dr. Colley March's description, would refer these things to a time far more remote than any deposit in which polished stones have been found. If we take the specimens from the undisturbed Hastings kitchen middens as our types of purity, and allow no other forms as typical that do not occur here, or in some other place equally well preserved (as in, say, barrows), we shall sometimes be able to fix their age in relation to polished and other neolithic implements. In many open-air stations and settlements in commanding positions we find vantage sites that have been used by various peoples in succession. A magnificent example of such occurs on the summit of Blackdown. But, unfortunately, the hunting here was done by workmen who turned over and sifted all the ground that yielded any kind of flint. Cornwall has recently yielded a rich harvest of the smaller pygmies. Occasionally we get cases where the relics of the different ages occur in superposition, and it is obvious that such sites ought to be preserved to be worked only by qualified men. It is in this point that we need amendments of the Ancient Monuments Preservation Act to which I hope to refer on another occasion.

W. J. LEWIS ABBOTT.

Ceylon: Archæology.

Andrews.

Early Defensive Works, Ceylon. By J. B. Andrews.

104

I wish to call attention to a fine cyclopean wall I visited in Ceylon recently, at the suggestion of Mr. J. Hill, of the Land Settlement Office, and formerly assistant to Mr. Bell, the Government archæologist. It surrounds Mapagala Hill close to the famous rock fortress of Sigiri. It is similar to others found in various countries in England and on the French Riviera, such as are described and illustrated in the valuable publications of Dr. A. Guébard, member of the Société préhistorique of France. This wall was evidently constructed for defensive purposes; the enormous stones are piled unhewn on top of one another without the use of mortar. It dates probably from the Neolithic epoch, if not before. Similar fragments exist on Sigiri Hill itself, but most of the many walls thereon are quite different in style, the stones being much smaller, more regularly shaped, and put together with some order. These last are attributed to the parricide King Kasyapa, A.D. 500 circa. Doubtless other similar walls exist elsewhere in Ceylon and India, but, to my knowledge, they have not yet been noticed.

I also visited this winter the *kadangas*, long lines of huge earthworks situated in the mountains of Coorg, some hours' journey from the town of Mysore. I may confirm what Dr. Richter in his *Manual of Coorg* says of their resemblance to the so-called British earthworks and dykes, such as the Wansdyke, even in the occasional presence of supporting forts or camps. They are of unknown antiquity, thousands of years old according to the imaginative native traditions. The *Coorg Chronicle* narrates their being repaired three or four hundred years ago, in some small sections with stone, it is said. Some of the *kadangas* are of great length, traversing the province

of Coorg from north to south. Their height is some 30 feet from the bottom of the fosse to the top of the vallum.

The lofty mud walls protecting some of the Mysore villages are noteworthy. They are strengthened by a fosse. In some respects they recall the *kadangas*.

J. B. ANDREWS.

Melanesia.

Edge-Partington.

Banks Islands Pudding-Knives. By J. Edge-Partington.

105

The varying forms of the handles of pudding-knives from the Banks group are evidently all derived from the same source. Without doubt the design is anthro-

pomorphic. Absolute proof of this, however, was wanting until, through the kindness of Dr. Codrington, I became possessed of a knife the handle of which was carved to represent a complete male human figure (No. 3). In comparing this specimen with others from the British Museum the anthropomorphic design is at once apparent. Dr. Codrington tells me that the native name of this implement is "igot." My specimen (No. 3) is made of reddish-brown wood and measures $16\frac{1}{2}$ inches in length and is much more highly finished than is usually the case with this type of implement.

Dr. Codrington says that the bread-fruit is abundant in the Banks Islands, where it forms an important part of the food supply when dried over a fire, wound round with strips of leaves and preserved in chests.

The figures in the illustration are one quarter the size of the originals.

J. EDGE-PARTINGTON.



Africa, East: Archæology.

Seton-Karr.

Prehistoric Implements from Somaliland. By H. W. Seton-Karr.

106

The place where I found the palæolithic implements about twelve years ago in Somaliland was the locality where they were produced, manufactured, or made. It was the work-place. The material was there.

That is the reason they were found in such a perfect condition in such large, or comparatively large, numbers, and aggregated or collected, not scattered. They had not been used. They were not waterworn. They were probably for barter and exchange.

What were the conditions under which they were found, under which they had lain for an immense period of time.

I consider that there are three essential conditions necessary to every locality where ancient stone implements are to be found *in situ* on or near the surface and in considerable numbers.

I judge these conditions from my discoveries in India, in Egypt, and in East Africa, Central Africa, and South Africa, and from investigations in these and other countries and localities where I have discovered little or nothing. Firstly, the surface must be from ancient times undisturbed. Secondly, the material for the manufacture of implements must be present. Thirdly, there must be, or must have been, water.

This wonderful spot in Somaliland lies geographically about ninety miles N.W. of the port of Berbera. It is a long, low hill rising about 100 metres above the bed of the Issutugan. There is no higher ground from which material can be washed on to it, and there is drainage on all sides, so that rain flows off immediately, carrying little or no material with it. The ground is formed of coarse, red quartzite sand, false-bedded, loosely cemented together, and not too easily dissolved, and in this the boulders and pebbles of quartzite and chert are buried. On the lower slopes of the hill they have been washed out and are lying loose. None of the Somali rivers reach the sea. There is seldom water flowing in their beds; only under the surface and obtainable by digging. The climate ever since neocosmic times has probably been a comparatively dry one. The geographical and climatic conditions have not varied. The landscape, the stratigraphical features, the hills, and river valleys have remained the same since the beginning of the quaternary period, I imagine, and perhaps longer.

The three conditions I hold essential are thus fulfilled in this case, just as they were in the case of the Indian implements from near Trivandrum and other places, and in the case of implements from the upper and lower levels of the Egyptian desert and the western Oases.

A great many museums all over the world have been presented with Somaliland implements, but they are all from this one spot or its immediate vicinity. That is to say, that the neolithic lance-heads, arrow-heads, and scrapers are from the low land, a mile or two to the south, where flint occurs; and the heavy Chelleen and Strapvien *coups de poings* of quartzite and chert from this hill-top where these materials occur.

I have not, during thirteen separate visits to Somaliland, found any other spot like it, nor one presenting the three conditions I formulate. I have frequently told other travellers about these things, especially officers traversing the country on duty during our small wars against rebellious tribes, and officers and civilians making pleasure trips who have leisure to look about. But I have not heard of any other similar locality having yet been found in the whole of Eastern Africa.

Similar implements, but of a rougher, more unworkmanlike, unfinished style and type have since been found at many places in South and West Africa widely separated from each other, from the Congo to the Zambesi and the Cape. But they were scattered and mostly washed out of alluvium and river deposits, and not so flawless and segregated within such a small area as these from Jalelo in Somaliland; and, as Sir John Evans first observed in his communication to the Royal Society, they form the most important link in the evidence for the universality of palæolithic times between east and west.

H. W. SETON-KARR.

Ireland: Archæology.

Lewis.

Ancient Remains on the Rock of Cashel. By A. L. Lewis.

107

Near the entrance to the enclosure round the rock is a much-battered cross or figure of some sort, standing on a stone, which looks like a rather shapeless boulder from which the two ends have been roughly cut off to make it somewhat square and suitable for a pedestal; and on this stone I saw a group of concentric circular markings, such as are found at New Grange, at Long Meg in Cumberland, and at

the little circle near it, and in other places; I was told that it was upon this stone that the early kings of Munster were crowned, and it appeared to me that there was here a link between the prehistoric and the historic which was at least of some interest from an anthropological point of view. Whether these concentric markings have been recorded before I do not know; I myself have seen no mention of them—not even in the *Encyclopædia Britannica*—and, as they are very faint, and can probably only be seen when the sunlight falls upon them brightly at a particular angle, I think it not unlikely that they may hitherto have escaped the observation of those who would be most interested in them, and that it may be well to note the fact of their existence.

A. L. LEWIS.

Fiji.

Hocart.

Two Fijian Games. By A. M. Hocart.**108**

The following two games may have been described. If so it will do no harm to repeat them in order to show how the manner in which a game is played deserves to be recorded no less than the bare rules. I give them as played in Lau with the Lauan terminology:—

Fitshi.—A bundle of reeds (*ngasau*) is heaped on a log (*ilango ni ngasau*); the reeds, about one foot long, lie parallel and project at both ends. Players, two or more, sit on each side. One proceeds to flip (*lisena*) the end of each reed successively so as to drive it out at the other end. He may not make more than one fall at a time and it must fall clear of the *ilango*. If he succeeds, he goes on; if he fails, he yields his turn to the next player; if one end of the reed rests on the *ilango* it is replaced; if two are knocked down the player keeps one and replaces the other. When all the reeds have been flipped off, each player counts his reeds; each reed is a point (*kai*).

The game recalls spilikins, in which ivory or wooden needles have to be removed from a heap with a small hook without causing any other pin to move. But it is instructive to note the different spirit in which they are played. In the European game strict rules are enforced with a view to increase the difficulties and hence the excitement; the heap may not be re-arranged, and the more confused the heap the better the game; in *fitshi* a player can spread out the reeds, as room is made in the progress of the game. I have seen boys substitute for a short log, on which the reeds had to be piled up, a long one on which they could be laid side by side and not interfere with each other, which makes the game rather tame from our point of view. In this as in other games they seem to enjoy the actual exercise of skill rather than emulation; boys—I cannot say how it is with men—keep no account of the score beyond each particular game.

Veimbuha.—This is the Lauan name; in Tailevu it is known as *veimbithi*. A straight line is drawn on the beach some eighty metres long, it is called *isoso*. In the middle is a small mound (*mata ni isoso*), which divides the line between two teams (*to*). The teams line up on each side of the *mata*. A boy, called *mbithi*, runs out from one camp and seeks to reach the opponents' line; of course it is no use making straight for it, so he has to run out with as much slant towards the adversaries' line as the latter allow, for they rush out in a mass to catch him; the one who touches him first is chased by party No. 1, while he tries to run round them or dodge through them to their own line; the one who catches him is chased in his turn. The player caught last and his captor stand to each other as *veitumbuna*, i.e., grandmother and grandchild; the captor is *tumbuna* (grandmother), the boy he touches *makumbuna* (grandchild); the *makumbuna* may not catch the *tumbuna* until he has been caught by another. If the pursued can reach the enemy's line uncaught, he places one foot on it; he is said to *so*, and scores one point (*kai*) for his side. The *so* is recorded by digging a finger into the *mata*; the holes are made along two parallel lines, each beginning

its record on the opposite side and extending to their own. After each so they begin again.

The game is one in which it is indispensable to note the manner of its playing as well as its rules, if we wish to use it as evidence of the people's character. Judging by the rules, there is no reason why the game should not be as highly competitive as football, and, like football, it involves rivalry between parties. Yet in practice there is very little emulation, at least among boys of twelve to fourteen, an age at which the spirit of competition is fully developed among British boys; each boy plays for himself, runs when he chooses and will simply look on while his side is being beaten if he is not inclined to run; he will desert the game, go and bathe, or take to some other pastime that appeals to him at the moment. The whole game is merely a pretext to run and take exercise. Yet emulation and party spirit are not remote from their character; in the course of three months I have seen a considerable change among boys divided into two factions and made to play each other week after week. In that short time they had become loyal to their sides, while desertion and negligence are almost suppressed.

Such a change partakes of the nature of a rough psychological experiment; in default of any real tests, it raises a presumption, if no more, that lack of emulation and *esprit de corps* are not racial among Fijians, but that these qualities lack opportunity in the casual life of small and primitive societies, and are capable of being developed.

N.B.—Ng as ng in singer.

A. M. HOCART.

REVIEWS.

Anthropometry.

Ernst.

Das Schulkind in seiner körperlichen und geistigen Entwicklung. Dargestellt von Dr. phil. Lucy Hoesch-Ernst und Dr. phil. Ernst Neumann. 1 Teil von Dr. phil. Lucy Hoesch-Ernst. Leipzig: Otto Nemnich Verlag.

109

This book is a very thorough anthropometric study of Swiss schoolchildren, and will be of special interest to medical officers and others who have to carry out measurements under the Education Administrative Provisions Act. The number of children measured by Dr. Hoesch-Ernst was not very large (175 boys and 175 girls), but on each of the subjects, about twenty anatomical characters and three physiological characters were measured. The ages of the children were from eight to fifteen years.

Extensive tables of measurements of children by other observers are given for the purpose of comparison, but in few, if any, cases have so many dimensions been measured as by Dr. Hoesch-Ernst, so that in the case of some no comparison is possible.

The necessity for an international agreement in the methods of measurement is illustrated by several cases in which comparisons are impossible, owing to differences in the methods of different observers. For example, Dr. Hoesch-Ernst's rule for measuring the girth of the chest is to pass the tape round so that it touches the lower edge of the shoulder blades at the back, and runs directly above the nipples at the front. This will give quite a different result from the rule of the Anthropometric Committee to measure the girth at the height of the fourth rib. Differences also exist in the methods of measuring the circumference of the thigh and of the head.

The greater part of the book consists of a detailed discussion of the various dimensions measured, of which complete statistical data are given. In every case tables are given of the average dimensions at the various years of school life, and Dr. Hoesch-Ernst has apparently collected all published data relating to children of the same ages in Russia, Germany, America, and other countries for comparison with the Swiss children. In many cases the differences are very considerable, and these appear to be due partly to difference of race, but also, unfortunately, partly to difference in the methods

and precision of the measurements. It is, therefore, very difficult or impossible to tell in many cases whether a difference is significant or is merely due to inaccuracy or to variation of samples.

Many interesting comparisons are made between boys and girls at different ages. As is well known, between the ages of twelve and thirteen girls are superior to boys in height and weight, but the author shows by measurements of grip that this superiority is gained at the expense of muscular strength. During school age the length of the trunk as a percentage of stature decreases in boys and increases in girls.

The author finds feebleness of grip to be a very good test of malnutrition.

The whole work shows how much valuable information is to be obtained from the anthropometric study of the growth of school children, and represents an enormous amount of painstaking work and research on the part of the author. J. GRAY.

Africa, South.

Theal.

History and Ethnography of Africa South of the Zambesi. By George McCall Theal, Litt.D., LL.D. Vol. II., Foundation of the Cape Colony by the Dutch. London: Sonnenschein, 1909. Pp. xix + 523. 22 x 14 cm.

110

The second volume of Dr. Theal's *History and Ethnography of South Africa*, of which the first was noticed in MAN, 1908, 32, differs widely in interest from its predecessor. The first volume, it will be remembered, was devoted to a comprehensive survey of the Bushmen, Hottentot, and Bantu tribes south of the Zambesi; the second gives the history of the first European colony settled at the Cape, and, incidentally, the effect of the advent of white men upon the natives. The constitution and history of the Dutch settlement, established in 1652 under the leadership of Jan van Riebeeck, after a voyage of 104 days (a remarkably short passage for the period), is a most interesting sociological study, and the organisation and government of the colony bear witness to the businesslike commonsense and energy of the Dutch of that time. The main object of the colony was to be a depôt and relief station for the vessels sailing between Holland and the East Indies, and when it is remembered that scurvy was a constant sequel to all long voyages, the value of the new settlement will be realised. At the same time it was the dream of Van Riebeeck to make the settlement self-supporting, and he neglected no opportunity of developing the natural resources of the locality. In this connection it is particularly interesting to read how, when on one occasion he made a short excursion into the interior, "he was fairly enraptured with the beauty and fertility of the land there, and drew a bright mental picture of what it might become if an industrious Chinese population were introduced and located upon it." The same suggestion was emphasised by his successor, Wagenaar, in an official report.

The "native question" was approached with great commonsense; the greatest care was taken to conciliate the Hottentots and to encourage them to trade. To prevent collisions between the settlers and natives the former were forbidden to engage in private trade with the latter, and misdeeds of natives were very leniently treated. It was only when all other methods failed that recourse was had to reprisal. In the same way, at a later date, the marauding Bushmen were treated with the utmost forbearance, and not until they proved incorrigible and a standing menace to the prosperity of the settlers were sterner methods of repression put in practice.

Of great interest is the history of the gradual exploration of the country, which proceeded mainly with the object of opening up communication with the fabulous and ever-receding kingdom of Monomatapa; but the explorers seem to have taken little care—with the notable exception of Hieronymus Cruse—to gather information concerning the natives. Consequently there is little actual ethnographical information in

the volume; what exists is entirely subordinated to the main theme, and consists mainly of sidelights upon the manners of the Hottentots, Bechuana, and Bushmen, and a few valuable items, such as the reference of the introduction of maize into South Africa from Guinea to the year 1658. All that need be said of the book, in conclusion, is that it is fully worthy of the knowledge and industry of Dr. Theal. T. A. J.

United Kingdom : Archæology.

Smith.

The Stone Ages in North Britain and Ireland. By the Rev. Frederick Smith. London : Blackie and Son, 1909. With 500 illustrations. Pp. xxiv + 377. 23 × 16 cm. **111**

This handsome volume is certainly the work of a thorough enthusiast, but opinions will be very much divided as to the conclusions which he advances. He holds that there was no hiatus, even in these islands, between the Neolithic and the Palæolithic Ages, and here many will agree with him. He also holds that he has discovered numbers of Palæolithic implements in Scotland and some in Ireland, and that many of his specimens are inter- or even pre-glacial. It is perfectly obvious from a careful study of his book that the artificial character of at least some—many would say the greater number—of the objects figured comes very seriously into question. Dr. Keane, who appears to have seen them, hails their discoverer as “the Boucher des Perthes of “Scotland” in the preface which he contributes to the book. This, of course, he may yet turn out to be, but before the value of his work can be properly estimated the stones themselves ought to be submitted to the scrutiny of a committee of experts. Mr. Smith claims to have discovered Palæolithic implements in the glacial deposits exposed on the sea-shore at Killiney, co. Dublin, a most revolutionary discovery if true. The present writer, after reading Mr. Smith’s book, took the opportunity of examining these deposits, and had no difficulty in finding a stone very closely resembling many of those described by Mr. Smith (*e.g.*, Fig. 444). It is impossible for him to say that it was identical with those found by Mr. Smith, or that Mr. Smith would have accepted it as an artefact. It, however, closely resembled the figures, and it was, in the present writer’s judgment, a purely natural object. Such many of the other stones figured would appear to be, but it is admittedly difficult to come to a conclusion in such matters from figures, and until the specimens have themselves been examined by competent authorities no definite or certain conclusion is in any way possible. BERTRAM C. A. WINDLE.

PROCEEDINGS OF SOCIETIES.

Anthropology.

British Association.

Anthropology at the British Association, Winnipeg Meeting, August 25th to September 1st, 1909. (Continued from MAN, 1909, 99.) **112**

ARCHÆOLOGY.

(a) AMERICAN.

PROFESSOR H. MONTGOMERY.—*The Archæology of Ontario and Manitoba.*—The paper gave an account of the author’s excavations, illustrated by specimens of the objects found. The sites investigated consisted of tumuli, mounds, and communal houses, and it was mentioned that cromlechs had been discovered in Saskatchewan. Among the finds exhibited were flints, articles of bone and shell, pottery, and copper beads.

PROFESSOR E. GUTHRIE PERRY.—*Exhibit of a Recent Find of Copper Implements.*—The find was made in Western Ontario, at Fort Frances, just below the Alberton Falls. The exhibit consisted of thirty-six objects, of which twenty-seven were fish-hooks, three arrow heads, and six spear points. All were made from cold-hammered copper from the Lake Michigan or Lake Superior district, as the presence of free silver in the copper made clear. The fish-hooks varied in size from one inch in length and a quarter of an inch in breadth to five inches in length to one and a half inches in breadth and some seemed to be copied from bone or shell models. The spear points varied in length from three to six and a half inches. The largest was very perfect in form, shaped like the typical European ones, while one with two holes in it for thongs was somewhat akin to those of the Eskimo. All the spear and arrow heads were so shaped that shafts of wood could be inserted in them, though in one case only was the hole a perfect circle.

MISS A. C. BRETON.—*Arms and Accoutrements of the Ancient Warriors at Chichen Itza.*—Chichen Itza, in Yucatan, is as yet the principal place in the region of Mexico and Central America where representatives of armed warriors are found. There was a remarkable development in the later history of the buildings there of painted sculptures and wall-paintings, mostly of battle scenes and gatherings of armed chiefs.

The stone walls of the ruined lower hall of the Temple of the Tigers are covered with sculptured rows of chiefs, who carry a variety of weapons. Of the sixty-four personages left, half-a-dozen have ground or polished stone implements; others hold formidable harpoons (two of them double) or lances adorned with feathers; whilst the majority have from three to five spears and an atlatl (i.e., spear-thrower). These are of different shapes. One figure has armlets with projecting rounded stones. Some have kilts, sporrans, leggings, and sandals. Eleven personages have tail appendages. There are protective sleeves in a series of puffs, breastplates, helmets, and feather headdresses, necklaces of stone beads, masks, ear and nose ornaments in variety. Small round back-shields, always painted green and fastened on by a broad red belt, may have been of bronze attached to leather, as a bronze disc has been found. Round or oblong shields were carried by two thongs, one held in the left hand, the other slipped over the arm.

The two upper chambers of the same building have reliefs on the door-jambs of sixteen warriors life size. They carry a sort of boomerang in addition to spears and atlatls. In the outer chamber was a great stone table or altar, supported by fifteen caryatid figures. Upon its surface was a relief of a standing chief, holding out his atlatl over a kneeling enemy, who offers a weapon. The walls of both chambers were covered with painted battle scenes, in which several hundred figures are still visible. They carry spears, atlatls, round or oblong shields, and a kind of boomerang which was intended for striking rather than throwing. On one wall the method of attacking high places by means of long-notched tree-trunks as ladders and scaffold towers is shown.

The building at the north end of the great Ball Court is evidently very ancient, and its sculptured walls have chiefs with spears and atlatls. The temple on the great pyramid, called the Castillo, also has warriors on its doorposts and pillars, with boomerangs, spears, and atlatls, and so has a building in the great Square of Columns. In an upper chamber of the palace of the Monjes are paintings in which are men with spears and atlatls, and also spears with lighted grass attached thrown against high-roofed buildings. A survey of all that has so far been discovered at Chichen gives a vivid idea of primitive battle array.

MISS A. C. BRETON.—*Race-types in the Ancient Sculptures and Paintings of Mexico and Central America.*—The different race-types in the ancient sculptures and

paintings found in Mexico and Central America form an important anthropological study. An enormous mass of material, evidently of many periods, includes sculpture, archaic stone statuettes, the portrait statues and reliefs at Chichen Itza, the Palenque reliefs, and the series of magnificent stelæ and lintels at Piedras Negras, Yaxchilan, Naranjo, Copan, Quirigua, &c.

In terra-cotta or clay there are the hundreds of thousands of small portrait heads and figurines found at Teotihuacan, Otumba, the neighbourhood of Toluca, and other ancient sites. Larger clay figures have been found in quantities in tombs, as in the States of Jalisco and Oaxaca; these were made as offerings, instead of the sacrifice at a chief's burial of his wives and servants. Small jadeite heads and figures, also found in tombs, show strongly marked types. If there are few specimens in gold, it is because throughout the country the Spaniards ransacked the tombs for gold. In painting there are the picture manuscripts, the frescoes at Chichen Itza, Chacmultun, and Teotihuacan, and a number of vases with figures from Guatemala, and British Honduras.

Among distinctive types are:—The chiefs in the reliefs at Xochicales, who sit cross-legged; the little shaven clay heads at Teotihuacan; the tall, well-built priests, with protruding lower lip, of the Palenque reliefs; the fifteen caryatid statues in feather mantles, of the Upper Temple of the Tigers, at Chichen Itza; and the sixteen stern warriors carved at its doors, these last similar in type to some of the modern Indians of the villages near Tlaxcala.

There are portraits of the Mexican Kings on the border of a picture-map which represents the western quarter of Tenochtitlan, and of the householders in that part of the city. Of female types there are the painted clay figures of Jalises with compressed heads. Some of them have short, broad figures, others are slender. Both types still survive. The queenly woman in Codex Nuttall-Zouche, and the women-chiefs of the Guatemalan stelæ belonged to a different caste to the obviously inferior women on those stelæ, fattened in preparation for sacrifice.

Herr T. Maler's most recent explorations on the borders of Guatemala have given magnificent results in the finding of thirty-seven stelæ at Piedras Negras, and at Yaxchilan twenty stelæ and forty-six sculptured lintels. The superb figures of warriors and priests indicate a race of men of tall, slender stature and oval face, with large aquiline nose, whilst the captives appear to be of a different race.

(b) EUROPEAN.

The Age of Stone Circles.—Report of the Committee.—In planning the arrangements for further excavations at Avebury Stone Circle, in continuance of the work done last year, the Committee were of opinion that the most satisfactory results were likely to be obtained from renewed examination of the silting in the fosse, particularly the lowest layers occupying the original bottom of the huge trench. It was also considered desirable, as a minor operation, to explore the ground at the base of one or more of the prostrate stones of the circle, with a view to examining the original sockets in which the stones stood when erect. Instructions were accordingly given to Mr. H. Gray, whose services were again secured, to concentrate attention upon these two main objects.

The main result achieved from the deep cuttings in the fosse is a confirmation of the opinion arrived at last year as to the probable date of the monument. Additional positive evidence has been obtained from the objects discovered in the lowest layers of silting, and on the original bottom of the ditch. These in all cases are objects such as are characteristic of the Neolithic period, and although it would be hazardous to state definitely that they *must* be of Neolithic date and cannot belong to the Bronze

Age, the negative evidence, afforded by a total absence of copper or bronze, and of objects which are *certainly* of Bronze Age, affords powerful confirmation of the probability of the earlier date being the right one. A transverse section of the fosse close to the modern road was expected to reveal the sloping sides of the causeway presumed to exist, connecting Kennet Avenue with the interior of the monument, since at first sight it seemed likely that the road would have followed the line of the causeway. No trace of the latter, however, appeared in this section, and as it was of considerable interest to ascertain whether or not such a causeway had existed, exploring trenches were cut on the opposite side of the road, and the causeway was discovered to the east of the present roadway. This locating of the original line of approach to the interior of the huge circle is a most interesting result of this year's excavations.

The Lake Villages in the Neighbourhood of Glastonbury. Report of the Committee.—The Committee have to report that, owing to the amount of work thrown on the hands of Messrs. Bulleid and St. George Gray in compiling and arranging the details of the monograph on Glastonbury Lake Village, it was found inexpedient to resume excavations this summer on the new site at Meare.

T. ASHBY, M.A., D.LITT., AND T. E. PEET, M.A.—*Researches in the Maltese Islands in Recent Years.*—Excavations have been conducted by the Government of Malta on the Corradino Hill, in which the co-operation of the British School at Rome has been cordially welcomed, and its investigations assisted in every way. The great megalithic buildings of Gigantia, Mnajdra, and Hagar-Kim, which Dr. Arthur Evans considers to have been buildings of a sepulchral character in which a cult of departed heroes gradually grew up, and other smaller prehistoric monuments of the islands, have been carefully described by Dr. Albert Mayr, though others have since become known; but excavation was needed in order that many essential facts might be ascertained. The investigation of the rock-cut hypogeum of Halsafieni, the architectural features of which imitate in the most surprising way those of the sanctuaries above ground, has for the first time produced an adequate series, available for study, of the prehistoric pottery of Malta; for from the excavations of Hagar-Kim but little has been, unfortunately, preserved. Of the three groups of megalithic buildings on the Corradino Hill, two had been already in great part excavated in the nineties, and the complete clearing of the upper one, which apparently was of a domestic character, was the first work undertaken in May. Its plan is extremely irregular, and much of it can hardly have been roofed unless in thatch or woodwork. A considerable quantity of pottery was found, very similar in character to that of Halsafieni, and belonging, like it, to the late Neolithic period. It has some affinities with pottery recently found at Terranova, the ancient Gela, in Sicily, but in many respects is unique. Many flints were found, but no traces of metal. A stone pillar was found in one portion of the building, some 2 feet 8 inches long and about 10 inches in diameter, which may have been an object of worship. The excavation of a second and smaller group, nearer the harbour, had been already completed by Dr. Zammit and Professor Tagliaferro; but a third further to the south, on the summit of the ridge, had never been examined, and it, too, was thoroughly investigated. An even larger quantity of pottery of the same character was found, with flints and fragments of stone basins, &c. It approximates more in style to the larger megalithic buildings of the island, and has a façade with a more pronounced curve than at Hagar-Kim, constructed of very large blocks, but much ruined. The interior consists of several distinct groups of rooms (often apsidal) not intercommunicating. The construction is of rough masonry, with large slabs at the bottom, and smaller blocks higher up; the walls begin to converge, even at the height (5 to 6 feet) to which they are preserved,

as though to form a roof. Into one of the rooms a very curious trough has at a later period been inserted: it is cut in a block of the local hard stone, 8 feet 9 inches long, 3 feet 8 inches wide, and is divided by six transverse divisions into seven small compartments, which show much trace of wear. The object of it is not as yet apparent. Another more carefully constructed room, perhaps contemporary with the trough, has its walls partly of large slabs, partly of narrow pillar-like stones. The floors of these rooms are sometimes of cement, sometimes of slabs. Many bones of animals were found, but only one human skeleton, and that in disorder and at a comparatively high level. The use of standing slabs at the base of walls, with coursed masonry above, visible in these buildings, finds its parallel in the Giants' tombs at Sardinia, the prehistoric huts of Lampedusa, and in many other places.

Archæological and Ethnological Investigations in Sardinia. Report of the Committee.—Dr. Duncan Mackenzie returned to Sardinia at the end of September 1908, and stayed there till the middle of November. He was accompanied for part of the time by Dr. Thomas Ashby.

Their new observations have materially increased our knowledge of the two main groups of Sardinian megalithic monuments, the Nuraghi and the "Tombs of the Giants." The previous year's work made it clear that the former were fortified habitations. Dr. Mackenzie has now visited other examples and recorded variations of type and peculiarities of construction. The most remarkable is the Nuraghe of Voës in the Bitti district towards the north of Central Sardinia. Triangular in plan, it contains on the ground floor circular chambers with bee-hive roofs; the usual central chamber and one in each of the three angles. The entrance is on the south and leads into a small open court with a doorway at each side leading to the chamber at the base of the triangle, and another doorway straight in front by which the central chamber is entered. There was an upper story, now destroyed, reached by a stairway of the usual type. Exceptional features are two long curving corridors in the thickness of the wall on two sides of the triangle, intended probably as places of concealment. Above them were others of similar plan, but both series are so low that the roof of the upper one is level with that of the bee-hive chamber on the ground floor. This skilfully planned stronghold must have been built all at one time; other large Nuraghi were originally of simpler design, and have grown by the addition of bastions and towers.

A new type of Nuraghe was discovered at Nossia near the modern village of Paulilatino, in Central Sardinia. It is a massive quadrangular citadel of irregular rhomboidal plan with a round tower at each corner. These towers resemble the stone huts of the villages attached to some of the Nuraghi; they are entered from a central courtyard, which here takes the place of the normal bee-hive chamber. It was partly filled with circular huts, so that this Nuraghe must be regarded as a fortified village rather than as the castle of a chieftain.

The dwellers in these Nuraghi buried their dead in family sepulchres, popularly known as Tombs of the Giants. Several writers had suggested that these tombs with their elongated chamber and crescent-shaped front were derived from the more ancient dolmen type, but hitherto there was little evidence to support this conjecture, only one dolmen being known in Sardinia. Dr. Mackenzie has now made this derivation certain; he has studied ten important groups of dolmen tombs, most of them entirely unknown, which furnish a series of transitional types. In one case the chamber of an original dolmen tomb had at a later period been elongated so as to resemble that of a Giant's Tomb. In another example the large covering slab was supported by upright slabs at the sides and back; and behind it there are traces of an apse-like enclosing wall, such as is characteristic both of the Giants' Tombs and also of dolmens in certain localities where Giants' Tombs do not exist: for example, in Northern Corsica and in Ireland.

Dr. Mackenzie also discovered a new type of Giant's Tomb in which the mound was entirely faced with stone, upright slabs being used below and polygonal work above. Another feature, hitherto unique, is a hidden entrance into the chamber at one side, in addition to the usual small hole in the centre of the front through which libations and offerings were probably introduced.

Dr. Mackenzie and Mr. Newton intend to go to Sardinia in September for six weeks in order to continue the exploration of the island. The importance of anthropometrical work in connection with the problems presented by the early civilisation of Sardinia was pointed out in a previous report of this Committee. Mr. W. H. L. Duckworth, a member of the Committee, went to Rome last April and studied the collection of one hundred Sardinian crania in the Collegio Romano. He made about 1,200 measurements and is preparing a report which will serve as a basis of comparison with any collection of ancient crania that may be obtained. In addition to these specimens which had not been described previously, Mr. Duckworth has examined about thirty Sardinian crania in the museums of Rome and Paris. He has recently spent ten days in Corsica, where he obtained valuable illustrative material.

R. M. DAWKINS.—*The Excavations at Sparta of the British School at Athens.* [Ann. Brit. School.]

Report of the Committee to Excavate Neolithic Sites in Northern Greece.—Further excavations have been carried out which corroborate the opinion already formed, that in this isolated part of Greece a people existed in a Stone Age form of culture, uninfluenced, until a late period, by the Bronze culture around them. It is of importance to note that an analogous state of affairs has been discovered in similar latitudes in southern Italy.

(c) ASIA AND AFRICA.

D. G. HOGARTH.—*Recent Hittite Research.*—This paper summarised the results of recent work on the Hittite problem, and pointed out that, chiefly owing to the discoveries at Boghaz Koi, it was now demonstrated that the Hittite power was domiciled in north-west Cappadocia long before the Assyrian records mention these people as being at Carchemish, in Syria. [Journ. Roy. Anthr. Inst.]

D. RANDALL-MACIVER.—*A Nubian Cemetery at Anibeh.*—The cemetery, which may be dated within the first five centuries A.D., exhibits what appears to be a negro culture strongly influenced by Egyptian, Greek, and Roman art. An important discovery was a script, which has not been deciphered up to the present.

ANTHROPOLOGICAL NOTE.

As the year 1910 is the centenary of the independence of the Argentine and Mexican Republics, sessions of the International Congress of Americanists will be held in Buenos Aires from May 16th to 21st, and in Mexico in September. It is proposed to organise a trip for members by land from the north-west frontier of Argentina to Bolivia and Peru, taking ship for Mexico at the Port of Callao. In Bolivia and Peru various places of archaeological interest will be visited. From Lake Titicaca the excursion will visit Potosi, La Paz, and Tiahuanaco, and proceed to Puno and Cuzco. Going by train to the Port of Mollendo, by steamer thence to Callao, Lima, and various cemeteries and ruins of importance will be seen, such as Ancon, Pachacamac, &c. Subscriptions of £1 for each member for the Buenos Ayres session, should be sent to the Treasurer, Don Alizandro Rosa, Director del Museo Mitra, Buenos Aires.

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